EXHIBIT 20

Armstrong World Industries, Inc. Projected Liabilities for Asbestos Personal Injury Claims As of December 2000

Mark A. Peterson

Legal Analysis Systems

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1. Overview of Report

This report summarizes results of analyses to estimate the liability of Armstrong World Industries, Inc. ("Armstrong" or "AWI") for asbestos personal injury claims that had been filed and were unresolved ("pending claims") and claims that would be filed in the future ("future claims") as of the date of Armstrong's bankruptcy petition, December 6, 2000 (to simplify analyses, future liabilities are forecast in this report as of December 31, 2000). The current report differs in several ways from our earlier November 2003 report submitted in conjunction with a plan confirmation hearing at that time. We now use a more recent Armstrong claims database. More fundamentally, we are now able to look at and draw upon the experiences of other asbestos defendants who have continued to receive and settle asbestos claims for more than five years since Armstrong entered bankruptcy. We are able to better understand what would have been Armstrong's asbestos liability at and after its petition date by considering the contemporaneous experiences of these other defendants.

The report first discusses Armstrong's corporate activities that led to its asbestos liability and then discusses the data and methods used to estimate Armstrong's liability. The report then presents estimates of Armstrong's liability as of December 2000 for pending claims and future claims. Next, the report presents sensitivity analyses that show how these liability estimates would change with changes in key assumptions used in the estimation analyses. The report's estimates of the number of future asbestos claims and the indemnity values of Armstrong's pending and future asbestos claims are forecast based on Armstrong's claims history, as well as trends that we observed among other asbestos defendants since Armstrong entered bankruptcy, and also take into account changes in the litigation environment since 2000. The passage of time has made this forecasting easier: We can see trends in claims filed against and settlements paid by other asbestos defendants that Armstrong would have also experienced had it remained in asbestos litigation. Finally, the report contains several sensitivity analyses that demonstrate how Armstrong's liability would change if we changed key assumptions, including possible broader extension of recent changes in law and procedures. The report includes appendices containing tables and details of the technical analyses used in the report.

Based on the analyses and information described in this report, it is my opinion that the present value of Armstrong's liability for asbestos bodily injury claims (pending and future) as of December 2000 will be approximately \$6.1 billion.

2. Dr. Peterson's Qualifications

For over twenty-five years I have studied, written about and participated as an expert in asbestos litigation and other mass tort litigation. I am a lawyer, a graduate of Harvard Law School and a recognized scholar on asbestos and other mass tort litigation. I have a doctorate in social psychology from the University of California, Los Angeles. For over twenty years I conducted research on asbestos and other mass tort litigation as a founding member of the RAND Corporation's Institute for Civil Justice. I have published many scholarly, peer-reviewed articles on asbestos litigation, mass torts, and workers compensation including articles on how asbestos and other mass tort claims arise, how the values of asbestos bodily injury claims are determined by medical and legal issues, evaluations of claims facilities used for paying asbestos and other mass tort claims, and other subjects related to asbestos litigation. I have taught courses on mass torts at UCLA Law School and the RAND Graduate Institute. My resume is attached to this report as Exhibit 1.

I am an expert on claim values, claims procedures and estimations of liabilities for fifteen asbestos trusts. I am a trustee of the Fuller Austin Settlement Trust, an asbestos trust, and a director of TSI, a nonprofit corporation that administers the trust distribution procedures for seven asbestos trusts. I have worked as an expert on asbestos litigation for judges, defendants, insurance companies, actuarial firms, other businesses, law firms and claimants' committees in bankruptcy.

I have worked for four U.S. District and Bankruptcy Courts as the Court's expert on how asbestos claims are valued and on asbestos claims procedures and trusts. As the Special Adviser to U.S. District Court Judge Jack B. Weinstein and U.S. Bankruptcy Court Judge Burton Lifland I helped the courts and parties to restructure the Manville Trust, establishing the Manville Trust Distribution Procedures that became a model used in subsequent bankruptcy cases and by later-created trusts to process, evaluate and pay the hundreds of thousands of asbestos claims that they have received so far.

I have been an expert in more than twenty other bankruptcies and class actions in different cases working for parties with divergent interests: defendant asbestos companies, insurance companies, claimants' committees, and court-appointed representatives for future claimants. In each of these cases I have provided descriptions and quantitative forecasts of pending and future asbestos bodily injury claims using the standard forecasting methods that I describe and use in this report. I have testified in court more than twenty times about my forecasts of asbestos liabilities. My forecasts and analyses have been accepted and used as the court's basis for findings of aggregate asbestos liabilities in the bankruptcy proceedings of Eagle-Picher, National Gypsum, Babcock and Wilcox, Turner and Newall, Western Asbestos, H. K. Porter, E. J. Bartel, Raymark, and J.T.Thorpe.

I have been recognized by courts as an expert on all areas that I address in this report and the descriptions and analyses in this report come from my scholarship and work as an expert on asbestos litigation. A listing of the matters in which I have testified as an expert within the past four years (deposition or trial) is set forth as Exhibit 2.

I have been retained by the Armstrong Official Committee of Asbestos Personal Injury Claimants ("ACC") as an expert for purposes of estimating asbestos liabilities and providing testimony on those matters. This report has been prepared as part of that engagement.

3. Bases of Armstrong's Asbestos Liability

In its 2003 Plan of Reorganization Disclosure Statement, Armstrong asserts that "nearly all" of its asbestos claims and liability arise from the insulation contracting activities of Armstrong prior to 1958 or of Armstrong's subsidiary Armstrong Contracting and Supply Corporation (ACandS) after 1958 (Disclosure Statement, p. 17). Armstrong's liability for asbestos claims is based in part on ACandS's use of Armstrong trade names (Disclosure Statement, p. 17). Armstrong's disclosure statement also lists 39 asbestos containing products that were sold and/or installed by Armstrong between 1910 and 1957, by Armstrong "to a very limited extent from 1958 to 1969" or by Armstrong's subsidiaries ACandS and National Cork Company (NCC) (Disclosure Statement, pp. 14-15).

Plaintiffs who assert claims against Armstrong typically allege one or more of the standard set of asbestos-related injuries. These include three groups of cancers all of which have been shown to be caused by exposures to asbestos: malignant mesothelioma, a rare cancer of the pleural tissue surrounding the lungs and that separates the abdominal and chest cavities, whose only known cause is from exposure to asbestos; lung cancer; and several gastrointestinal cancers. A

substantial majority of plaintiffs claimed a nonmalignant disease: either asbestosis, a disease characterized by scarring and fibrosis of the lung tissue, or pleural disease, involving scarring of the pleura resulting in pleural plaques or pleural thickening.

Armstrong addressed and defended these law suits as a member of the Center for Claims Resolution ("CCR") a consortium of asbestos defendants created in 1988 to replace a previous consortium, the Asbestos Claims Facility ("ACF"). Both organizations were formed by defendants for purposes of achieving more favorable settlements and reducing defense and administrative expenses. Because the 20 or more members of CCR accounted for substantial portions of all recoveries that plaintiffs might expect to receive for their injuries, by negotiating jointly CCR members were able to obtain more favorable settlement terms than could individual defendants standing alone. Wielding this joint power, CCR would either enter into settlement discussions when claims were listed for trial or else enter into group settlements with plaintiffs' law firms on terms favorable to CCR members. The group settlements controlled the flow of claim payments, capped annual amounts that would be paid, and imposed criteria that plaintiffs were required to satisfy to receive payment, criteria that were stricter than members could have required outside of CCR. The group settlement agreements reduced the total indemnity payments to plaintiffs by CCR members, including Armstrong, and also allowed CCR members to limit their defense and administrative costs.

The CCR dissolved in January 2001 soon after Armstrong's December 6, 2000 bankruptcy petition date. The likely effects of Armstrong's loss of the benefits of CCR membership would be complex, but on balance after CCR's dissolution Armstrong would have faced considerably greater total costs for resolving asbestos bodily injury claims. Armstrong probably would have received and/or paid fewer claims as an asbestos defendant handling its cases independently compared to the number of claims it would have continued to receive and pay as a CCR member. To the extent that Armstrong had been named as a defendant and paid some claims in the past simply because it was a named CCR member, it is likely that Armstrong would compensate a somewhat lower percent of claims than it had as a member of CCR. However, even if Armstrong were named in or paid compensation in a smaller percentage of all asbestos law suits, its costs to resolve each claim and its aggregate costs to resolve all claims would both have increased for several reasons. First, Armstrong would no longer benefit from the cross-subsidization among CCR members. Second, after it left CCR, Armstrong no longer had the negotiating advantages provided by CCR. Third, Armstrong would no longer be one of twenty defendants which resolved claims (and was viewed by plaintiffs) as part a large group but instead would be a standalone defendant with liability for the sale and installation of widely-used asbestos insulation products which had Armstrong logos that were easily memorable. Finally, because Armstrong could no longer share payment of defense and administrative expenses with other CCR members, those expenses would have increased greatly for Armstrong. As a CCR member, Armstrong's defense and administrative costs had been less than 4 percent of its indemnity payments. In comparison, asbestos defendants who were not members of CCR typically paid administrative and defense costs that were 40 percent to 100 percent or more of indemnity payments.

In addition to these upward pressures on its aggregate asbestos liability caused by the dissolution of the CCR, Armstrong also would have faced an increase in liability due to the bankruptcy of many other "top tier" asbestos defendants. Between January 2000 and December 2001, eight traditional "top-tier" asbestos defendants with historically very large asbestos liability each filed for bankruptcy protection: Babcock & Wilcox (February 2000), Owens Corning and Fibreboard (October 2000), GAF (January 2001), Pittsburgh Corning (April 2000), W.R. Grace (April 2001), USG (June 2001), Turner & Newall and the other Federal Mogul companies (October 2001). As in all other estimations of a bankruptcy debtor's asbestos liability, this report forecasts Armstrong's liability for asbestos claims as they are treated and valued within tort litigation,

accepting all of the characteristics and events of tort litigation but assuming for purposes of estimation that Armstrong continued in tort litigation as if it had not filed for bankruptcy protection. Had Armstrong remained outside of bankruptcy after these eight other, major defendants filed for Chapter 11 protection, Armstrong's asbestos liabilities would have increased greatly because of those filings, as plaintiffs and their counsel would expect the remaining solvent defendants still in the tort system to "pick up the share" of the defendants who sought bankruptcy protection.

While it is clear that Armstrong's total costs of administering, defending and indemnifying asbestos bodily injury claims would have increased after the CCR dissolved, in fact Armstrong filed for bankruptcy protection before CCR's dissolution and so did not develop a history of defending and resolving asbestos claims outside CCR that we could use as a basis for forecasting its future liabilities as an independent defendant. However, there are data on the post-CCR experience of asbestos litigation for other defendants that are relevant in this connection. Turner and Newall (T&N), like Armstrong a member of CCR, continued to settle and pay asbestos claims for 10 months after Armstrong entered bankruptcy, until it too sought bankruptcy protection in October 2001. After leaving CCR, T&N had to pay twice as much on average to resolve mesothelioma and lung cancer claims. Union Carbide, which was also a CCR member but one that has remained out of Chapter 11, has seen great increases in its aggregate liability payments and new claim filings. Settlements paid by other asbestos defendants continued to increase sharply since Armstrong and then T&N entered bankruptcy. To forecast key parameters of Armstrong's asbestos liabilities, both future claim filings and Armstrong's costs for resolving pending and future claims, I rely upon both Armstrong's data through 2000 as a member of CCR and data from other asbestos defendants since 2000.

The forecasts in this report are based on standard forecasting methods that have been used by many researchers over the past twenty years, on substantial data about Armstrong's past litigation experience, and the knowledge that I have gained from working as an expert and researcher on asbestos litigation over more than a quarter century.

4. Estimating Liabilities for Asbestos Bodily Injury Claims

Forecasts of asbestos liabilities are needed and have become commonplace in many different circumstances. Asbestos defendants estimate their present and likely future liabilities both for their own corporate planning and also as part of financial reporting. Insurance companies forecast asbestos liabilities to create reserves for specific insureds. Insurance rating organizations forecast liabilities of insurance companies. Financial analysts forecast liabilities of specific asbestos defendants and insurance companies. Businesses forecast liabilities of other companies that face asbestos liabilities in order to determine whether or not to engage in business activities with the companies that face such liabilities. Asbestos trusts are required to forecast their liabilities in order to determine how much money must be reserved for future claimants and what amount can be paid to claimants with presently pending claims, forecasts that are required by the U.S. Bankruptcy Code. Parties to bankruptcy proceedings forecast liabilities in order to draft reorganization plans and disclosure statements. Bankruptcy courts estimate the asbestos liabilities of debtors. Other courts estimate the asbestos liabilities of particular defendants in the course of class action, insurance coverage or other litigation.

These forecasts have been done in many ways, with highly varying quality and credibility. Credible forecasts of an asbestos defendant's liability must look together at several sources of information. First, forecasts must draw upon data about the defendant's past and current experience with asbestos claims--counts of claim filings, distributions of asbestos diseases,

resolutions of claims both with and without payment, trends for all of these elements of liability. Next, the forecast should consider developments and the state of asbestos litigation at the time of the forecast and reasonable expectations about future developments. Where, as here, forecasts are being made for an earlier point in time, the forecasts should rely on data and developments that have occurred since the date for which forecasts are made. Then the forecast must reflect the epidemiology of asbestos-related diseases, trends in the incidence of asbestos-related disease both past trends and reasonable forecasts of future trends as well as expected trends in filings of claims for those diseases and trends in the amounts paid to indemnify those claimants. The forecasts in this report are based on all of these sources.

5. Data for asbestos bodily injury claims involving Armstrong

The CCR maintained a common database for all law suits filed against any member which included detailed information about plaintiffs, their claims against CCR members, litigation events, indemnity costs and other matters useful in estimating Armstrong's liability for pending and future claims. Legal Analysis Systems (LAS) received three different extracts of CCR data involving Armstrong claims. These data bases were produced at different times:

- (1) May 9, 2001
- (2) July 31, 2001
- (3) January 24, 2002

For my prior, November 2003 report we had used the May 9, 2001 database that was most contemporaneous to Armstrong's petition date. We now use the January 24, 2002 database, which reflected updates in claim status as of the bankruptcy date that had not earlier been entered.

Our analysis is based on individual claims, but Armstrong's database shows more than one claim for some claimants. We consolidated the information from duplicate claims into a single record for each claimant who made duplicate filings. Rarely (in about 0.1 percent of the cases) we accepted multiple (i.e. "come-back") claims for a single individual: filed and resolved claim for asbestosis, pleural disease, or unspecified disease, and then a later filed claim for an asbestosrelated cancer.

One law firm, the Maritime Asbestos Legal Clinic, submitted 30,035 claims, only 2 of which were ever been paid (27,371 closed with zero payment, 26,587 closed with zero payment and unspecified disease, 2,664 currently pending, 2,622 currently pending with unspecified disease). While Armstrong's database categorized most as closed claims, many have been placed on inactive docket by the Federal MDL Court without any resolution on their merits. Uniformly, these claims are poorly documented and give little information by which to assess their disease or other characteristics needed to evaluate the claims. Because of the uncertainties and limited information about these claims, we cannot regard them as representative of other pending or possible future claims. Therefore, we have excluded the claims from our analyses, in effect treating them as if they had never been filed. There is little net effect on our forecasts of Armstrong's asbestos liabilities from excluding these claims. Further, there is no reason to expect a similar bloc of such poorly-supported claims in the future and even if like claims would be filed in the future, they would have little impact on Armstrong's liability.

6. Estimation of Armstrong's Asbestos Liability, December 2000

Armstrong's asbestos liability is a sum of its liability for pending claims, its liability for future claims and its costs for administering and defending those claims. I do not estimate its costs for administering and defending asbestos claims in this report, but Armstrong's costs would have been considerable. Typically defense and administrative costs can range from from 40 percent to 100 indemnity costs. Armstrong's defense and administrative costs would have been far greater after CCR dissolved in January 2001.

The following formula is the basis for estimating the total indemnity that Armstrong would pay to resolve these claims:

Number of Claims × Average Resolution Cost = Forecast Indemnity

Here, counts of pending claims are drawn from Armstrong's databases. I forecast counts of future claims by drawing upon three sources: Armstrong's claims databases, epidemiological forecasts of the number of asbestos-related cancer deaths, and data for other asbestos defendants who continued to receive claims after Armstrong's bankruptcy. Average resolution costs represent the costs paid on average to claimants, averaged across both those who receive payment and those who do not (i.e. calculated by multiplying the percent of resolved claims that involve payment times the average amount when claimants are paid). Estimates of average resolution costs that Armstrong would have paid after its bankruptcy date are based on both Armstrong's historic experience in resolving claims as well as data on settlement trends among asbestos defendants who continued to settle claims after Armstrong's bankruptcy.

For better precision, the formula above should be carried out separately for each asbestos disease. For Armstrong (and for every asbestos defendant), settlement values and resolution costs vary among different asbestos-related diseases (Table 1, below). Armstrong paid far more on average to resolve mesothelioma claims than any other disease. Resolution costs differed among all other diseases. Because the mix of diseases among pending claims may differ from the mix of diseases among claims previously resolved by Armstrong, we cannot assume that Armstrong's overall historic average resolution cost among all claims will be appropriate for estimating the average value of pending claims. For example, if mesothelioma claims represent a greater percentage of pending than resolved claims, then use of Armstrong's overall historic average would underestimate the company's liability for pending claims. By applying the formula above separately for claims within each disease category, we control for differences in disease distributions between pending and resolved claims.

Table 1: Average Settlement Values and Resolution Costs, By Year and Disease

Settle	S	Settlement Averages Resolution Aver				Averages	i	
Year	Meso	Lung	Othc	Nonm	Meso	Lung	Othc	Nonm
1990	\$12,848	\$5,962	\$2,980	\$1,699	\$12,088	\$5,523	\$2,686	\$1,590
1991	23,355	9,940	4,418	2,625	22,783	9,676	4,187	2,540
1992	24,586	12,835	7,732	3,956	24,387	12,694	7,642	3,870
1993	26,214	10,887	4,977	2,780	25,840	10,774	4,954	2,769
1994	26,998	10,397	5,400	2,692	24,705	9,970	5,157	2,666
1995	30,953	11,592	6,996	2,749	27,928	10,761	6,639	2,602
1996	34,154	10,554	5,815	3,338	32,066	10,143	5,708	3,291
1997	40,100	12,542	6,612	3,847	35,315	12,026	6,232	3,781
1998	46,418	11,992	5,368	1,753	45,288	11,785	5,310	1,738
1999	52,879	11,277	5,385	2,847	51,895	10,809	5,193	2,660
2000	87,286	16,480	6,855	3,608	81,651	16,097	6,783	3,477

Notes: Averages expressed in year 2000 dollars. Settlement averages include positive payments only. Resolution averages are calculated across all resolved claims, whether or not closed with payment.

6.1. Forecast Indemnity for Claims Pending on December 6, 2000

On December 6, 2000, when it filed for bankruptcy protection, Armstrong had 141,175 pending asbestos bodily injury claims and had resolved 317,494 claims. Table 2 shows counts for each type of asbestos-related disease among both pending claims and resolved Armstrong claims. For resolved claims Table 2 shows the disease identified in Armstrong's database. Note for 15,737 resolved claims no disease is identified in the Armstrong database. Almost all of these 15,737 claims were resolved with no payment or very small payments, suggesting that most claims in this category *resolved-unspecified-disease* either had no asbestos-related disease or else were claims that were not pursued by plaintiffs even to the point of providing documentation of disease. We disregard these claims in forecasting Armstrong's asbestos liability.

Table 2: December 6, 2000 Pending Claims

Description	Meso	Lung	Othc	Nonm	Unsp	Total
Number Pending Number Resolved	2,700 11,082	5,118 19,592	1,582 5,911	88,020 265,172	43,755 15,737	141,175 317,494

6.1.1. Imputation for Unspecified Disease Claims

For pending claims, many more claims do not have a disease specified in the Armstrong database than is the case for resolved claims. This is typical in claims databases that are maintained and used by asbestos defendants. In many states plaintiffs' law suits need allege only general descriptions of disease, such as "asbestos-related disease" or "asbestos lung disease" without alleging a specific type of disease. As a result defendants, including Armstrong, frequently do not know the specific disease for many claims for some time until the disease is identified through discovery or discussion with the claimant's lawyer.

To use information about disease from the Armstrong database, we had to address the large number of "unspecified" disease claims among recently filed and pending claims. We used two steps to address this data problem. First, we were able to identify diseases for many of these claimants with unspecified disease by linking the Armstrong and Manville Trust databases (August 2005 extract), using social security number as the basis for these links. When we could link claims in the two databases, we used Manville disease data. Even after this process, 43,755 pending Armstrong claims still did not have a disease specified in either the Armstrong or Manville database (Table 2 shows the distribution of diseases after we had used Manville disease for linked claims).

Second, we estimated the disease distributions of these 43,755 claims by relying upon Armstrong's historic data. For each claim, Armstrong's database has two disease fields: plaintiff's alleged disease and CCR's determination of the disease (on Armstrong's behalf). Often the plaintiff alleged field is blank in the database, but CCR (Armstrong) had made its disease determination. We looked to these claims to construct what analysts call a "transition matrix" that answers the question: among claims where plaintiffs have not made a specific disease allegation, what has CCR (Armstrong) determined the disease to be? The transition matrix is the distributions of diseases, as found by CCR (Armstrong) among claims where plaintiffs have not specified disease. Table 3 shows the transition matrix that we derived for Armstrong claims, based on 83,972 resolved cases that had no specific plaintiff-alleged disease.

Table 3: Armstrong Transitions Among Resolved Claims that Have Unspecified Alleged Disease

Quantity	Meso	Lung	Othc	Nonm	None
Percentage Distribution	1.0%	3.4%	1.3%	82.5%	11.8%

We then apply this Armstrong transition matrix to estimate the disease among the 43,755 pending claims that had no disease that we could identify in either the Armstrong or Manville databases. In effect we assume that after further review, Armstrong will find these 43,755 claims will have the same disease distributions that CCR (Armstrong) had found among similar claims that in the past had no specific plaintiff-alleged disease. Table 4 shows the results of these steps that we used to fill in unspecified disease among Armstrong's pending claims.

Table 4: Disease Distributions After Imputation for Pending Claims

		,				
Claim Status	Meso	Lung	Othc	Nonm	Unsp	Total
Pending Resolved	2.2 3.5	4.7 6.2	1.5 1.9	87.9 83.5	3.7 5.0	141,175 317,494

With these steps we estimate Armstrong would find that 3.7 percent of pending claims will have no asbestos-related disease, similar to Armstrong's experience for claims that it had resolved since 1990 (5.0% with no disease). We assume that Armstrong would pay no indemnity to pending claimants with no asbestos-related disease.

We estimate, in addition, that Armstrong would also deny payment to some claimants within each of the disease categories (Section 6.1.2.2, below). As I discuss below, I assume that Armstrong would deny payments to a far greater percentage of claimants than Armstrong had resolved without payment prior to its bankruptcy filing.

6.1.2. Calculation of Indemnity for Pending Claims

Table 5 shows the number of pending claims in each disease category after imputation of unspecified disease claims.

 Disease
 Description
 Meso
 Lung
 Othc
 Nonm
 None
 Total

 Realloc Number Pending
 3,134
 6,604
 2,153
 124,105
 5,180
 141,175

Table 5: Number of Pending Claims

Notes: After imputation of unspecified disease claims.

6.1.2.1. Forecasts of Armstrong Settlement Amounts

We use two payment parameters to forecast how much Armstrong would have to pay to resolve these claims: (1) payment rate—the percent of resolved claims that Armstrong will resolve with payment and (2) average settlement—amount that Armstrong would pay to claims in each disease category when it makes a payment (i.e. the average excluding claims closed without payment). Unlike the number of claims pending against Armstrong at the time of its bankruptcy filings, which can be calculated directly from the past data in Armstrong's database, both the payment rate and average settlement amounts are forecasts of future resolutions by Armstrong that cannot be determined solely by calculation from Armstrong's past data. For many reasons, it is clear that amounts that Armstrong would have had to pay to resolve asbestos claims would have continued to increase, particularly for mesothelioma and lung cancer where the values had increased dramatically before Armstrong's bankruptcy filing.

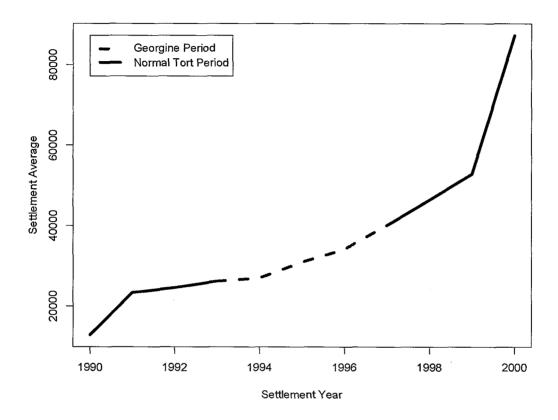
First, Armstrong's asbestos settlements for mesothelioma and lung cancer, the most expensive claims, were increasing prior to its bankruptcy, a pattern common among other, major asbestos defendants. Table 1 (above) shows the annual average values of Armstrong's settlements within each disease category. For both mesothelioma and lung cancer, average settlements had increased over the long term. Then for both Armstrong's average settlements increased greatly in 2000, its last year in litigation before entering bankruptcy.¹

Figure 1 shows the sharply increasing trend in annual Armstrong's settlements of mesothelioma claims. Because of these increases, by the time of its bankruptcy petition, mesothelioma settlements accounted for about 40 percent of Armstrong's total liabilities to asbestos claimants even though mesothelioma claims accounted for only three percent of all claims. Similarly, Figure 2 shows the sharp increase in Armstrong's settlements for lung cancer claims, particularly

^{1.} Values of settlements that Armstrong reached between 1992 and 1997 were determined or affected by the Georgine class-action settlement. Armstrong settled relatively few claims between 1994 and 1997, mostly claims settled subject to the terms of the Georgine settlement. Just before this, during 1992 and 1993 Armstrong made large group settlements with many plaintiffs' law firms, settling over 70,000 claims for settlement amounts that may have been seen as enhancing good will and support for CCR's Georgine class action among plaintiffs' law firms.

before and after the Georgine years.

Figure 1: Armstrong Mesothelioma Settlement Values



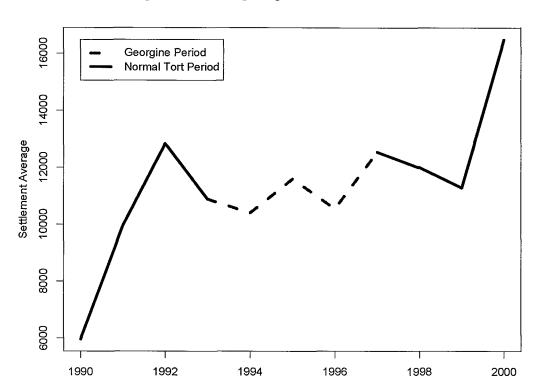


Figure 2: Armstrong Lung Cancer Settlement Values

The long and sharp increases in settlement amount trends prior to Armstrong's bankruptcy suggest that the trends would have continued had Armstrong not filed for bankruptcy protection. More likely, trends in Armstrong's settlement amounts would have gone up even more sharply after CCR dissolved one month after Armstrong's bankruptcy.

Settlement Year

Second, because the CCR dissolved at the beginning of 2001, at the time of its bankruptcy Armstrong was losing the substantial savings in both defense and indemnity costs that it obtained from its CCR membership. CCR provided tactical, litigation advantages that would be unavailable to Armstrong outside of CCR. As the largest provider of settlement dollars to asbestos plaintiffs, CCR had been able to extract favorable settlements for its members. CCR settled asbestos claims in large groups saving plaintiffs' law firms transaction costs and generating large total payments to the firms and their clients. Plaintiffs' law firms were willing to give CCR favorable settlements in return for the large, collective payments that they received only from CCR. After CCR's dissolution Armstrong would instead have had to settle asbestos cases on its own without CCR's advantages in negotiating favorable settlements and, as a result, it would have to pay much more to settle claims. Former CCR members who continued in litigation experienced just such sharp increases in settlement amounts after the dissolution of CCR, as I discuss below.

Third, the historic settlements in Armstrong's database had all occurred before the spate of 2000-2001 bankruptcies had fully affected its asbestos liabilities. If Armstrong had continued in tort litigation (which must be assumed in determining its asbestos liabilities within its bankruptcy), it would have paid more in the future simply because all the other big payers had gone into bankruptcy. This effect is widely recognized.

Both of these specific causes of increasing settlement values--CCR's dissolution and the bankruptcies of eight other, primary defendants--are superimposed on the broad increases in asbestos settlements that had been occurring for years, that increased in 2000, showed no signs of abating after 2000 and that continue today. Together all of these caused settlement levels to increase among all asbestos defendants who remained in asbestos litigation, particularly former members of CCR, and we can see these increases by looking at their litigation experiences after 2000.

Figure 3 and Figure 4 show trends in settlement values among several asbestos defendants for whom we have publicly available data. Among these defendants, settlement values increased particularly sharply after 2000 for Thorpe Insulation, a company, like Armstrong, whose liability arose primarily from the installation of asbestos containing insulation products.



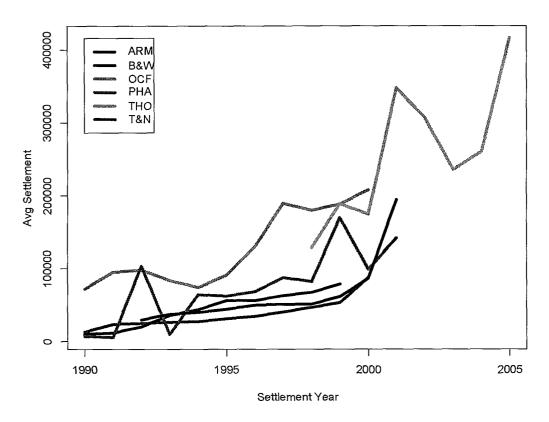
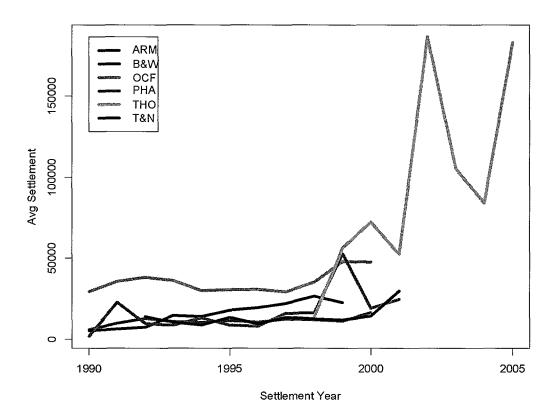


Figure 4: Trends in Lung Cancer Settlement Amounts



We get a clear picture of what would have been the continuing trends in Armstrong's asbestos liabilities by looking at the contemporaneous experience of other asbestos defendants who continued in litigation after Armstrong's December 6, 2000 bankruptcy petition date. The publicly available information about the experience of other CCR members--Union Carbide, Turner & Newall, and USG-- all contain statements indicating sharp increases in their asbestos liabilities after CCR's dissolution at the beginning of 2001.

Financial statements for Union Carbide show that its asbestos litigation costs beginning one year after leaving CCR averaged 644 percent of its expenses during its last two CCR years (Table 6).

Table 6: Union Carbide's Annual Asbestos Claims Resolution Costs

Year	Indemnity	Indemnity & Defense
1999		\$44
2000		53
2001	\$39	53
2002	155	247
2003	293	403
2004	300	386
2005	139	214

Note: Entries in millions of dollars in the year when paid. Prior to 2001, Union Carbide did not delineate indemnity and defense costs separately in its financial statements.

USG, a former CCR member that entered bankruptcy in mid-2001 described its experience in asbestos litigation in the first part of that year:

"In the first and second quarters of 2001, cash payments to resolve Personal Injury Cases increased dramatically, primarily as a result of the bankruptcy filings of other defendants in asbestos personal injury lawsuits. As a result of these bankruptcy filings, plaintiffs substantially increased their settlement demands to the remaining defendants, including U.S. Gypsum, to replace the expected payments of the bankrupt defendants."

U.S. Gypsum reported that its average cost (defense and resolution) per resolved claim increased by 230 percent between 2000 and 2001.

Data on Turner & Newall's (T&N) asbestos liabilities presented in estimation of its liabilities in the Federal Mogul bankruptcy proceedings, show the sharp increases in post-2000 settlements that Armstrong would have faced had it not filed for bankruptcy. Figure 5 and Figure 6 show the trends in T&N's mesothelioma and lung cancer settlements through its October 2001 bankruptcy filing.

Figure 5: Mesothelioma Settlement Values for Turner-Newall

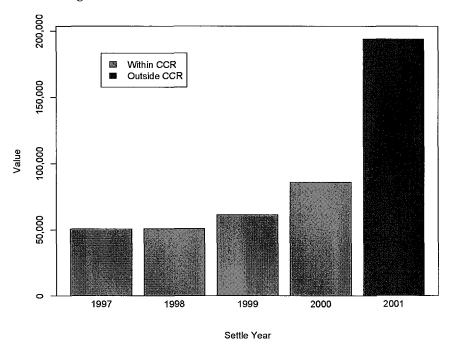
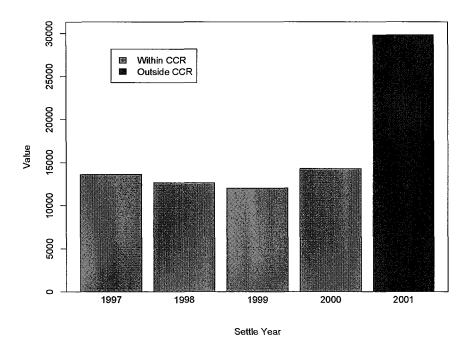


Figure 6: Lung Cancer Settlement Values for Turner-Newall



We look to all of these sources, but particularly to the contemporaneous experience among similar asbestos defendants, to conclude that Armstrong would also have paid far larger settlements in 2001 and later had it remained in tort litigation. To estimate the rates of increase in settlement

amounts for each disease, we look to rates of increase in Armstrong's settlement amounts before its bankruptcy.

Table 7 shows rates of increase in Armstrong's settlement amounts for each asbestos disease from the time that the demise of the Georgine class action returned Armstrong to active litigation through year 2000. The table shows the rates of change over three different periods each ending in 2000: the one year period 1999 to 2000 (2000 settlement average divided by 1999 settlement average), as well as over two and three year periods (1998-2000 and 1997-2000 respectively). However measured, Armstrong's settlements increased at high rates in the years after CCR's Georgine class action was overturned.

Table 7: Rates of Increase in Armstrong Settlement Values

Comparison	Ratios of Settlement Values						
Years	Meso	Lung	Othc	Nonm			
2000 vs 1997	2.177	1.314	1.037	0.938			
2000 vs 1998	1.880	1.374	1.277	2.058			
2000 vs 1999	1.651	1.461	1.273	1.267			

To forecast how much Armstrong would have paid to settle claims at the end of 2000 when it filed bankruptcy we took Armstrong's 2000 settlement average for each disease and multiplied by the rate of increase in Armstrong's settlement over the last year preceding its bankruptcy, 1999 to 2000. Table 8 shows our forecasts of what Armstrong would have paid to settle present and future claims (shown in the "2001" row) and Armstrong's actual average settlements since the Georgine class action was overturned. Our forecasts were obtained simply by continuing Armstrong's past trends for one more year. For comparison, Table 8 also shows the average settlement amounts actually paid by T&N in 2001 and in each prior year.

Table 8: Comparison of Armstrong and T&N Settlement Values

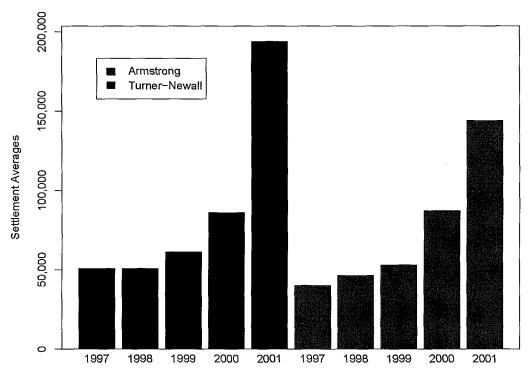
Cottle	Meso Settle			ng
Year	IWA	T&N	AWI	T&N
1997 1998 1999 2000	\$40,100 46,418 52,879 87,286	\$50,699 50,811 61,235 86,022	\$12,542 11,992 11,277 16,480	\$13,609 12,646 12,010 14,273
2000	144,109	194,051	24,077	29,836

These forecast Armstrong settlement values are conservative. First, we assume that Armstrong's settlement amounts would increase for only one year and would then remain at the level for all future years, adjusted only by monetary inflation of 2.5 percent. In fact, settlement averages paid by similar asbestos defendants continued to increase after 2001. Second, we use the rates of past Armstrong increases through 2000, a period before the CCR's dissolution and bankruptcy filings by other asbestos defendants would have had their full effects in increasing Armstrong's asbestos

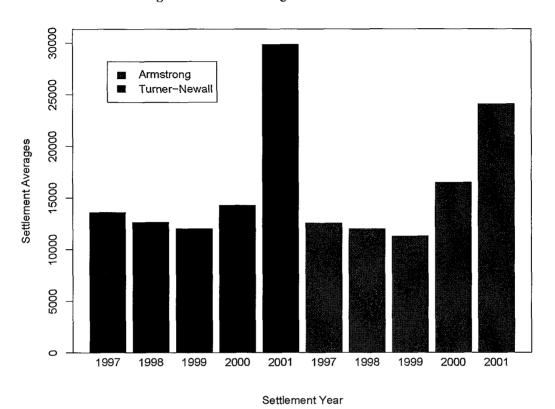
liabilities. The increases in Armstrong's settlements that would have occurred after 2000 from these upheavals in asbestos litigation would have caused Armstrong's settlements to increase at rates greater than those we observed during 2000.

Figure 7 and Figure 8 show the conservatism of our forecasts. Figure 7 compares Armstrong's past and forecast settlements for mesothelioma with actual settlements in those same years for T&N. The 2001 increase in T&N's mesothelioma settlements was substantially greater than our forecast increase for Armstrong. Similarly, Figure 8 shows that the actual increase in T&N's actual lung cancer settlements between 2000 and 2001 was considerably greater than the increase that we forecast for Armstrong.

Figure 7: Trends In Mesothelioma Settlement Values



Settlement Year



6.1.2.2. Forecasts of Armstrong Payment Percentage

As with all asbestos defendants, Armstrong resolved some asbestos claims without payment. Table 9 (p. 20) shows the percent of claims within each disease category that Armstrong closed with payment during 1999 and 2000 (Armstrong resolved over 80,000 asbestos claims in the two years). Only 1 to 6 percent of Armstrong's claims were closed without payment before its bankruptcy. As Table 9 shows, payment rates were similar for T&N when both companies were still in the CCR.

We expect that, like changes in Armstrong's settlement values, Armstrong's payment percentages would also change in 2001 after leaving CCR, but that the changes in payment rates would reduce Armstrong's asbestos liability. First, Armstrong would pay fewer claims as an independent asbestos defendant handling its own cases than it had as a CCR member. As a policy agreed to by its members, CCR had not attempted to determine the specific, individual liability for each of its members named in law suits, i.e. whether or not each company had exposed the plaintiff to asbestos. Rather, once CCR had verified the plaintiff's exposure to the asbestos products or operations of one of its members, the CCR and its members usually agreed to pay the plaintiff a total settlement amount in exchange for a release of all CCR defendants. Following a complicated set of formulas agreed upon by the CCR members, the total cost of the settlement was then shared among all CCR members named in the plaintiff's law suit, an agreement that relieved the CCR of costly and divisive reviews to determine which members should be held responsible for the plaintiff's claim. This system limited information that plaintiffs needed to provide about the liability of CCR members. Once a plaintiff had produced evidence of the liability of any one named CCR defendant, there was no need to provide evidence establishing the

liability of any others. In contrast, after the CCR dissolved, plaintiffs suing Armstrong would then have had to provide evidence of Armstrong's liability in order to maintain their law suits and we expect they would have done so more consistently than they had when Armstrong was in CCR. In turn, Armstrong, now outside of CCR, would have had strong incentive to identify those plaintiffs who could not establish its liability and consequently would have rejected more claims than was the case while it was operating under CCR rules.

Moreover, recent events in asbestos litigation might contribute further to a reduction in the percent of nonmalignant claims that Armstrong would pay. In recent years, some defendants and courts have come to criticize certain doctors and medical facilities who helped recruit and provided reports for some plaintiffs who have filed law suits claiming nonmalignant asbestos diseases. Some asbestos trusts and courts now refuse to accept medical reports provided by the criticized doctors and facilities. In addition, there have been some limited changes in substantive and procedural tort law that make it harder for some plaintiffs to recover, especially for nonmalignant claims. These events might have two different effects that would reduce the number the nonmalignant claims that Armstrong will pay. First, fewer nonmalignant claims might be filed in the future, an effect that we discuss and that contributes to our forecast of declining future nonmalignant claims (Section 6.2.4). Second, as a result of these criticisms of medical evidence sources and other developments in the tort litigation environment, Armstrong might have come to reject a greater number of nonmalignant claims, particularly among claims pending on the petition date, an effect that we forecast by estimating a lower payment percent for nonmalignant claims.

To estimate the higher claims rejection rate that we expect for Armstrong after its petition date, we looked again at T&N's experience outside of CCR. Prior to 2001, T&N had rejected between 3 and 8 percent of claims, rejection rates similar to Armstrong's (Table 9). In 2001 after leaving CCR, T&N closed about 30 percent of cancer claims without payment. We assume that like T&N, after leaving CCR Armstrong would also have rejected about 30 percent of cancer claims,

However, T&N's rejection rate among nonmalignant claims did not change after leaving CCR. T&N continued to reject less than 3 percent of nonmalignant claims without payment. We conclude that this 3 percent rejection rate for nonmalignant claims was transitory. Based on testimony and interviews of T&N's defense counsel and review of T&N's data for nonmalignant claims resolved after CCR, we determined that T&N had resolved nonmalignant claims after CCR primarily through nuisance-type settlements. T&N made minimal payments to large groups of nonmalignant claims based on little scrutiny of the settled claims, a strategy used often by asbestos defendants to clear out large numbers of marginal, nonmalignant claims. Defense counsel confirmed this strategy for addressing nonmalignant claims that T&N carried over from CCR, but added that they did not expect to have continued with this strategy. After T&N cleared out marginal nonmalignant claims left over from CCR, defense counsel expected to resolve the remaining higher-quality nonmalignant claims based on closer reviews that would have resulted in more rejections among those claims but larger settlements values for claims that were found qualified for payment.

Our forecasts of Armstrong's rates for rejecting and paying claims begin, in effect, with T&N's next stage in addressing nonmalignant claims. We assume that T&N's rejections of nonmalignant claims would have fallen toward its 70 percent rate for cancers. However, in forecasting Armstrong's nonmalignant payment percentage, we consider the effects of the recent events and forecast that Armstrong would reject 40 percent of nonmalignant claims, leaving a payment rate of 60 percent. Moreover, as I describe in Section 6.2.4., below, we also forecast a decline in nonmalignant claim filings against Armstrong. We recognize that plaintiffs' law firms, as well as Armstrong, will note both relevant legal changes and the heightened scrutiny and criticism of certain medical providers and, as a result, law firms will themselves reject some claims that they

might have filed in previous years.

Table 9 shows the settlement percentages within and after CCR for both Armstrong and T&N, with our forecast rates for Armstrong in red.

Table 9: Payment Percentage for Turner-Newall and Armstrong

Settlement	Turner-Newall Payment Rate			t Rates	Arms	trong Pa	yment	Rates
Year	Meso	Lung	Othc	Nonm	Meso	Lung	Othc	Nonm
1999 2000	96.2 95.3	96.1 96.9	95.6 97.6	95.0 92.1	98.1 93.5	95.8 97.7	96.4 98.9	93.5 96.4
2001	65.8	68.9	73.1	97.1	70.0	70.0	70.0	60.0

Note: Forecast rates of payment are shown in red.

As these data show, within CCR settlement percentages were similar for both companies. After CCR, T&N paid a lower percentage of resolved claims than it had within the CCR. Table 9 also shows our forecast for Armstrong: that in the future it would reject cancer claims at a 30 percent rate similar to T&N, but that Armstrong would also reject 40 percent of nonmalignant claims, a higher rejection rate than T&N's outside of CCR.

We can evaluate our forecast of Armstrong's payment percentages by looking to the experience of Owens Corning, which is a major asbestos defendant that was not in the CCR and that handled its asbestos claims as an independent defendant - the position Armstrong would have been in after the end of the CCR. Table 10 compares forecasts of the percent of claims in each disease that Armstrong would close with payment to the percentages paid by OC since 1991, after it had left the Asbestos Claims Facility, a consortium that preceded the CCR. Owens Corning is a particularly useful comparison because that company was most notable in pursuing a variety of litigation strategies, including a period during the early and middle 1990s when it aggressively reviewed claims, rejecting many and trying many. Even during this period of heightened claim reviews, Owens Corning rejected far lower percentages of claims than we forecast for Armstrong. This comparison adds to our belief that our forecasts of Armstrong's payment percentages are conservative, understating rather than overstating Armstrong's likely liability.

Table 10: Owens Corning Paid A Higher Percent of Claims than Forecast for Armstrong

		Disease					
Defendant	Year	Meso	Lung	Othc	Nonm		
ОС	1991	88.0	98.4	85.7	94.3		
	1992	92.2	96.9	94.5	92.5		
	1993	81.6	88.0	90.9	90.7		
	1994	89.9	94.5	95.1	88.8		
	1995	84.2	90.7	89.7	96.2		
	1996	80.1	91.5	91.4	81.8		
	1997	82.2	86.1	82.1	77.2		
	1998	85.2	89.1	87.2	88.3		
	1999	93.9	95.9	95.7	96.0		
	2000	95.5	95.6	90.6	96.9		
AWI	Proj	70.0	70.0	70.0	60.0		

Note: Entries are percentage of resolved claims resulting in some payment. For claims filed against Owens Corning after 1990.

6.1.2.3. Armstrong's Liability for Pending Claims

Table 5 (page 9) shows the number of pending claims within each disease category. Table 11 adds to this our forecast value parameters, settlement averages and payment percentages for each disease and the average resolution value for each disease, the amount that we estimate would be paid on average to all claims within each disease category averaging across all claims whether or not they receive payment. The forecast resolution average is the product of multiplying the forecasts for average settlement times the settlement percentage.

Table 11: Number and Average Value of Pending Claims

-	Disease				
Description	Meso	Lung	Othc	Nonm	None
Realloc Number Pending	3,134	6,604	2,153	124,105	5,180
Forecast 2001-Settle-\$	\$144,109	\$24,077	\$8,726	\$4,571	\$0
Forecast Pay-%	70%	70%	70%	60%	0%
Forecast Resolution-\$	\$100,876	\$16,854	\$6,108	\$2,742	\$0

Notes: After imputation of unspecified disease claims.

We use these numbers and values to complete the formula (from page 6) for deriving the values of pending claims as shown in Table 12. As that table shows, we forecast that Armstrong's liability for the indemnity of claims pending at the time of its bankruptcy petition 2000 was \$780.9 million (2000\$).

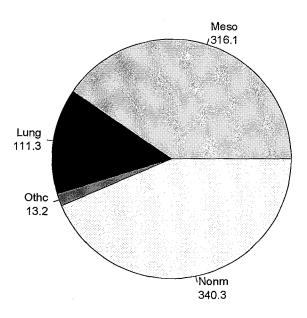
Table 12: Forecast of Indemnity for Pending Claims

Disease	Number of Reallocated Claims	Average Resolution	Indemnity (\$millions)
Meso	3,134	\$100,876	\$316.1
Lung	6,604	16,854	111.3
Othc	2,153	6,108	13.2
Nonm	124,105	2,742	340.3
None	5,180	0	0.0
Tot	141,176	\$127,038	\$780.9

Note: Average resolution amounts and indemnity are expressed in year 2000 dollars. Average resolution amounts are calculated across all resolved claims (both with and without payment).

Figure 9 compares graphically the amount of indemnity for each type of asbestos disease.

Figure 9: Distribution of Indemnity Amounts for Pending Claims, by Disease



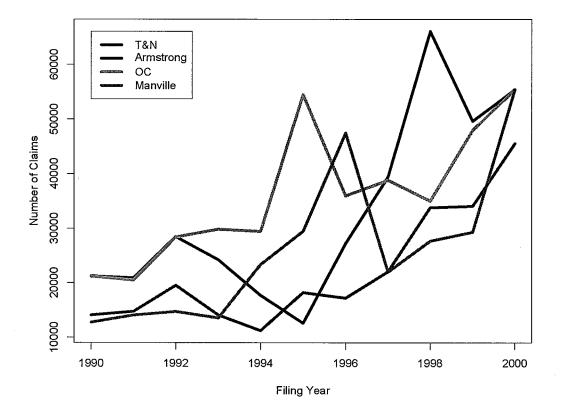
6.2. Projections of Number And Timing of Future Claims

Like other major asbestos defendants, Armstrong saw substantial increases in asbestos claim filings in the decade 1990-2000 (Figure 10). Taken jointly--increasing claim filings, increasing settlement values (Section 6.1.2.1), and prospects of greater future increases in both--created extraordinary burdens for asbestos defendants, leading to bankruptcy filings for each defendant

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shown in these Figures and more than a dozen others who have filed since 2000 (Manville filed in 1982). Among all defendants, Armstrong bore the heaviest burden of increased claim filings. Armstrong received more new claims than any other asbestos defendant during the five years preceding Armstrong's bankruptcy filing.

Figure 10: Claim Filings for Major Asbestos Defendants, 1990-2000



Note: Armstrong and OC entries are annualized for bankruptcy year.

In this section I consider how Armstrong's increasing claim filing trends would have continued into the future, presenting our forecasts of future claims that would be filed after Armstrong's bankruptcy petition date. We forecast Armstrong's future claims using the methods of my November 2003 Armstrong report, but making two changes to assumptions based on more recent information. First, because we now have more information about what has happened in asbestos litigation since Armstrong entered bankruptcy in December 2000, we update our estimates of changes in rates of cancer claim filings since Armstrong's bankruptcy (Section 6.2.3). Second, we look to the effects of changes in the litigation environment to adjust and reduce our forecast of the number of future nonmalignancy claims that would be filed against Armstrong (Section 6.2.4). Together these changes mean that compared to my November 2003 report we now forecast somewhat fewer future claims, but a different mix with a higher portion of serious and costly cancer claims.

The number, timing and types of future claims will depend both upon the number of people in each future year who develop diseases that are asbestos-related (the incidence of diseases) and also the fraction of those people who will pursue claims (the propensity to sue).

This section describes how the historic propensity to sue Armstrong for cancer is calculated and used to forecast future cancer claims. Inputs to this calculation are epidemiological models of the incidence of asbestos-related cancer deaths, and historic data on the number of cancer claims filed against Armstrong and other defendants since Armstrong's petition date.

6.2.1. The Incidence of Asbestos-Related Cancers

Medical research by epidemiologists provides projections of the incidence of asbestos-related cancers. Projections differ among epidemiologists, but most agree on the relative changes in cancer deaths over time--increasing until late in the twentieth century followed by a slow decrease in the following years. Because of this general agreement on changes over time, projections of future claims will be generally similar even when based on differing projections of incidence.

Figure 11 shows epidemiological projections of the annual number of asbestos-caused deaths between 1967 and 2027 from each of three asbestos-related cancers--mesothelioma, lung cancer and other (primarily gastro- intestinal) cancers--among workers exposed before 1980 in major asbestos-using industries. The figure represents the results of work by Nicholson, Perkel and Selikoff (1982) which is generally recognized as the most comprehensive and reliable forecast of asbestos-related cancer deaths (Appendix Table A1). The peak year of forecast deaths differs among the three types of cancers because the latency periods, i.e. the time from first asbestos exposure to the occurrences of cancer, differ among the three diseases. Because the latency period is longest for mesothelioma, the risk of that disease increases for a longer period and the incidence of mesothelioma peaks later than for other asbestos-related cancers. The patterns of asbestos diseases among exposed workers and, therefore, the patterns of legal claims, have been changing over time with these changes in the relative incidences of each type of cancer. In past years lung cancer has been the most frequent cancer among occupationally exposed workers and the most frequently claimed cancer. However, now and in the future workers will face equivalent risks for mesothelioma and lung cancer.

^{2.} Forecasts for lung and other cancers are excess deaths, i.e. the number of additional deaths that will occur because of asbestos exposures that are in addition to cancer deaths that would otherwise have occurred without asbestos exposure. Asbestos exposure is the only know cause of mesothelioma.

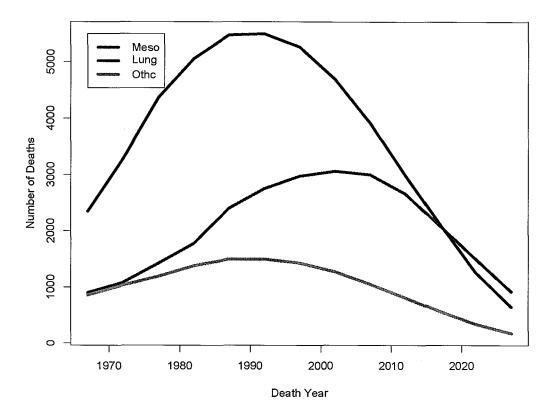


Figure 11: Nicholson Cancer Projections

6.2.2. Accuracy of Epidemiological Projections

Epidemiologists' projections, like those of Nicholson, et. al., have their own uncertainties, but can be tested by comparing projections for past years with data on mesothelioma deaths in those same years collected by the National Cancer Institute's SEER (Surveillance, Epidemiology and End Results) cancer registry. The SEER program collects comprehensive data on the incidence, treatment and end results (including deaths) for all types of cancers at fourteen different sites in the United States. SEER generates cancer rates from these sites that can then be used to estimate the incidence of each type of cancer for the United States as a whole. The SEER program is highly sophisticated and recognized as the state of the art for such programs throughout the world and its results are widely used in medical research and planning.

Because SEER collects data continually, its results include estimates of the annual national incidence of each type of cancer over many years. The annual SEER estimates of the national incidence of mesothelioma provide a means to test epidemiological forecasts of mesothelioma deaths. Because asbestos is the only known cause of mesothelioma, epidemiologists' forecasts of asbestos-related mesothelioma deaths should tend to correspond to the annual SEER national incidence estimates for all mesotheliomas. While the SEER national incidence measures are themselves estimates based on the sample of SEER sites with their own uncertainties, over many years an accurate epidemiological forecast of mesothelioma deaths should track trends in the SEER estimates of actual mesothelioma deaths.

In fact, as Figure 12 shows, the Nicholson et. al. forecasts correspond remarkably well to SEER estimates of actual mesothelioma deaths. Nicholson and his colleagues published their forecasts in 1982. Since then and through the most recent years of data, the Nicholson forecasts closely

track the SEER estimates of annual mesothelioma deaths.

Because lung cancer and the other asbestos-related cancers have causes other than asbestos exposure, the SEER estimates of those cancer deaths will exceed and cannot be used to test the epidemiological forecasts for those other cancers. But because Nicholson's forecasts for all types of cancers are based on the same methods and the same estimates of the number of exposed workers and the extent of their asbestos exposures, the strong confirmation of Nicholson's forecast for mesothelioma provides confidence for Nicholson's epidemiological forecasts for each type of cancer.

Figure 12: Epidemiological Projections Confirmed by SEER's Mesothelioma Counts

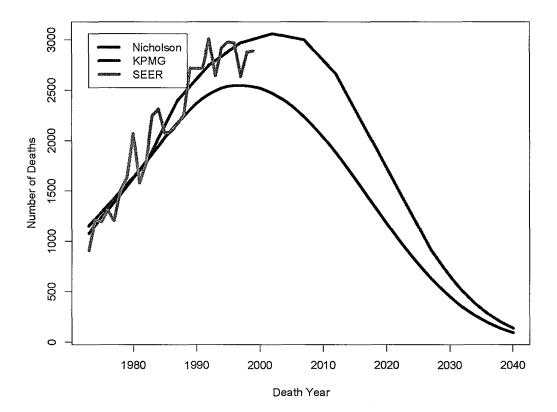


Figure 12 also shows a second forecast of asbestos-related mesothelioma deaths made by analysts at KPMG-Peat Marwick in 1992 as part of their work as experts in the bankruptcy proceedings of National Gypsum. Dr. Tom Vasquez and his colleagues at KPMG-Peat Marwick attempted to update the 1982 forecasts made by Nicholson, et. al., using more recent U.S. Labor Department statistics on the populations of workers in asbestos exposed industries, more recently formulated medical models of the risk of mesothelioma and lung cancer from asbestos exposure and several alternative assumptions (KPMG's annual forecasts are reproduced in Appendix Table A2). As Figure 12 illustrates, the KPMG forecasts are very similar to those made by Nicholson et. al. a decade previously and, as a result, claims forecasts that are based on the two alternative epidemiological forecasts are only slightly different. Figure 12 also shows that over the eighteen-year time period 1982 to 1999 the original Nicholson projections more closely fit the SEER data on actual mesothelioma deaths than do the KPMG forecasts.

6.2.3. Propensities to Sue Armstrong

Data and forecasts of the incidence of asbestos-related diseases describe the potential for liability against Armstrong. As long as asbestos-related cancers occur, it is likely that some claims will be filed. We compare incidence forecasts for past years to Armstrong's data on past claims to see how much of this potential for asbestos cancer claims was directed against the company in the past: Among all the potential asbestos-related cancer claims in the country what fraction resulted in Armstrong claims? We formalize these comparisons through our propensity to sue calculations shown in the next paragraph. Armstrong's claims data also show trends in claiming against the company, whether the propensities to sue had increased, decreased or stabilized in recent years. The historic levels and trends in propensities to sue document the past behavior by claimants and plaintiffs' lawyers in pursuing possible claims for asbestos-related cancers.

We look to this past history of claiming against Armstrong -- past propensities to sue and trends in the propensities to sue -- as well as information about claiming against other asbestos defendants to forecast future claiming against Armstrong. We forecast the number of claims forecast for each type of cancer in each future year by multiplying the number of deaths projected by Nicholson for that year times our forecast of the propensity to sue for that cancer in that year. The calculations that are used first to derive propensities to sue and second to forecast future claims based on these propensities to sue are stated below.

Calculation of Propensity to Sue:

Number of Claims + Incidence = Propensity to Sue

Forecasting Future Claims from Propensity to Sue:

Propensity to Sue × Incidence in Future Year = Projected Claims in Future Year

We base our forecast of future propensities to sue Armstrong primarily on the number of cancer claims filed in the past against Armstrong and its trends in past annual filings. Table 13 shows the annual number of asbestos bodily injury claims filed against Armstrong for each type of asbestos-related disease after the imputation of diseases to unspecified disease claims, as described above. Like other CCR members, claim filings against Armstrong (a) were suppressed between 1994 and mid-1997 when the CCR's Georgine class action was sub judici, (b) increased sharply in late 1997 and 1998 after the U. S. Supreme Court's Amchem decision confirmed the Third Circuits rejection of the Georgine class action, and then (c) continued at high levels until Armstrong filed for bankruptcy protection in December 2000. Overall, Armstrong and other CCR members saw a sharp increase in annual claim filings over the decade of the 1990s. This trend too was shared with all major asbestos defendants. Figure 13 provides graphic representations of these increasing trends in Armstrong filings for each of the three types cancers.

^{3.} Entries in Table 13 differ somewhat the comparable table in my November 2003 report for three reasons: we now use a different, more recent database; as discussed in Section 5, we exclude claims by the Maritime Asbestos Legal Clinic and also claims in the CCR database that did not name Armstrong, and we use different methods for imputing disease when unspecified (Section 6.1.1).

Table 13: Number of Filings Against Armstrong, By Filing Year and Disease

Filing	Disease					
Year	Meso	Lung	Othc	Nonm	None	Total
Unkn	16	68	46	1,552	129	1,812
1971	0	0	1	2	2	5
1972	1	2	0	1	0	4
1973	1	0	1	9	2	13
1974	5	1	1	15	7	29
1975	5	6	0	67	6	84
1976	17	9	2	131	39	198
1977	21	23	9	222	33	308
1978	48	52	18	1,023	214	1,356
1979	68	156	40	1,474	440	2,178
1980	142	237	59	2,199	1,132	3,770
1981	153	257	81	2,705	731	3,927
1982	171	271	90	3,046	572	4,151
1983	204	322	98	2,870	596	4,090
1984	294	399	131	3,772	366	4,962
1985	334	602	151	6,316	524	7,927
1986	451	1,001	276	10,510	968	13,206
1987	656	1,511	400	13,278	1,863	17,708
1988	401	947	252	13,272	1,088	15,960
1989	632	1,334	311	13,901	1,625	17,803
1990	672	1,391	461	18,138	583	21,245
1991	748	1,361	355	17,909	533	20,906
1992	894	1,617	511	25,056	365	28,443
1993	608	1,349	400	20,495	1,367	24,218
1994	698	1,118	306	14,013	1,557	17,691
1995	390	830	275	10,694	402	12,590
1996	487	1,163	560	24,595	419	27,224
1997	1,165	2,176	663	34,506	918	39,428
1998	1,713	3,097	1,051	58,639	1,559	66,059
1999	1,514	2,508	717	43,862	1,039	49,640
2000	1,705	2,389	797	45,006	1,836	51,733
Total	14,214	26,197	8,063	389,278	20,915	458,668

Figure 13: Number of Cancer Filings Against Armstrong

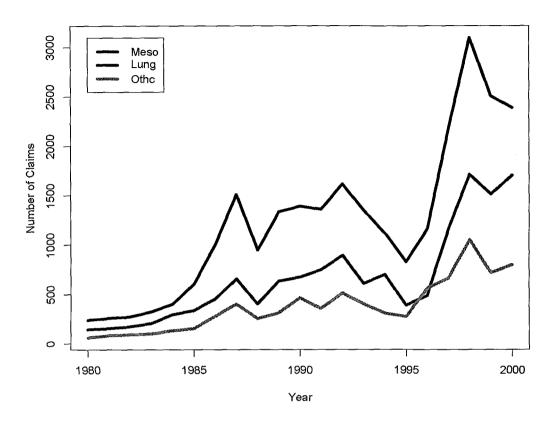


Figure 14 compares Nicholson's forecast of mesothelioma deaths between 1990 and 2000 with the number of mesothelioma claims filed against Armstrong in those years. Because the epidemiological forecasts are for calendar years, we forecast Armstrong's liability as of the December 31, 2000 year end, essentially ignoring future claims that might be forecast between Armstrong's December 6 petition date and the end of the year. As Figure 14 shows, during the three years before its bankruptcy, mesothelioma claims against Armstrong had increased sharply, growing closer to the incidence of mesothelioma deaths that Nicholson forecast.

3500 Nicholson Armstrong-Meso 3000 2500 Number of Deaths/Claims 2000 1500 1000 200 0 1990 1992 1994 1996 1998 2000

Figure 14: Nicholson Meso Forecasts vs Armstrong Actuals

As we did in November 2003, we used the same, standard method for forecasting future cancer claim filings based on Armstrong's historic propensities to sue. For example, the forecasts of future mesothelioma claim filings are based on a calculation of the relationship between past claims to the past incidence of the disease. This calculation, known as the "propensity to sue," is derived by dividing the number of claims for mesothelioma in a year by the number of mesothelioma deaths projected for that same year and establishes the historic claiming rate for mesothelioma against Armstrong. Propensities to sue Armstrong for lung cancer and for other cancers are calculated similarly, by dividing the number of claims for each type of cancer in a year by the Nicholson forecast of the number of asbestos-related deaths from that cancer in the same year.

Year

Table 14 below shows the annual propensities to sue calculated for each of the three types of asbestos-related cancers for each year since 1990. From the early 1990s the number of cancer claims filings have increased steadily for most asbestos defendants, but this pattern differed for Armstrong and other CCR members. Their claim filings were suppressed from 1993 to 1997 by the pendancy of the Georgine class action. Many victims of asbestos-related cancers delayed filing law suits while the class action was pending in order to avoid the terms of that settlement. In turn, cancer filings against Armstrong increased sharply during the eighteen months from the summer of 1997 after the U. S. Supreme Court halted the Georgine class action until the end of 1998 as cancer victims who had withheld their claims then filed lawsuits. Propensities to sue then remained at new, far higher levels during 1999 and 2000.⁴

Filing	Type of Cancer			
Year	Meso Lung		Othc	
1990	25.8	25.3	30.8	
1991	27.9	24.8	23.8	
1992	32.5	29.4	34.2	
1993	21.8	24.8	27.0	
1994	24.6	20.7	20.9	
1995	13.5	15.5	18.9	
1996	16.7	21.9	38.9	
1997	39.2	41.4	46.5	
1998	57.3	60.2	75.3	
1999	50.4	49.8	52.5	
2000	56.4	48.6	59.7	

As we had done in November 2003, we used Armstrong's claims experience during the two year period from January 1999 through December 2000 as the starting point to forecast claims against Armstrong after December 31, 2000. This two year "base period" represents Armstrong's most current claims experience, the two years immediately preceding the date of forecast, and a period that is after the surge of filings of deferred Georgine claims. As Table 14 shows, propensities to sue for each type of cancer during the two years of the base period were relatively stable and considerably higher than during or before the years in which the Georgine class action was sub judici. This pattern is consistent with the experience of other, defendants during the 1990s (Figure 10, above).

Forecasts of future Armstrong claims must take two matters into account: (1) the most recent level of claiming shown by the propensities to sue during years preceding Armstrong's bankruptcy filing and (2) the fact that cancer filings and propensities to sue had increased sharply as of December 2000. Together these matters not only establish a starting point for forecasting future Armstrong cancer claims based on the most recent propensity to sue, but also suggest that propensities to sue Armstrong would continue to increase and exceed the levels of the base period.

Both in November 2003 and now we forecast that the number of cancer claim filings against Armstrong would have continued to increase after its December 2000 bankruptcy filing. Our preferred model presented in my November 2003 report, the "Increasing" model assumed:

that the increase in propensities that we observed in Armstrong claims prior to the bankruptcy would have continued for five more years and then the propensities to sue would increase no further but would remain for all further years at the level reached in the fifth future year. The rates of increase in the propensity to sue would be the same as rates of increase in those measures observed generally among asbestos defendants during the 1990s (Peterson, November 6, 2003, p. 16).

Our "general" rates of propensity to sue increases that we used in the 2003 report were the rates of increase in propensities to sue for the Manville Trust and UNR between 1992 and 1997. Using these historic rates, we had forecast that Armstrong's propensities to sue would gradually increase

Because we use a newer, more thoroughly cleaned database and better imputation methods, propensities to sue in Table 14 are uniformly lower than those I reported in my November 2003 report.

between 2001 and 2005 and then would remain the same in all years following 2005 with no further increase. Table 15 shows our earlier forecast of the rates of increase in propensities to sue for each cancer between 2001 and 2005 (i.e. the propensity to sue in each year relative to Armstrong's propensity to sue during the 1999-2000 base period).

Table 15: November 2003 LAS Report: Increasing Propensities to Sue

	Rates of Increase						
Disease	2001	2002	2003	2004	2005		
Meso Lung Othc	1.000	1.098 1.123 1.198	1.245	1.368	1.490		

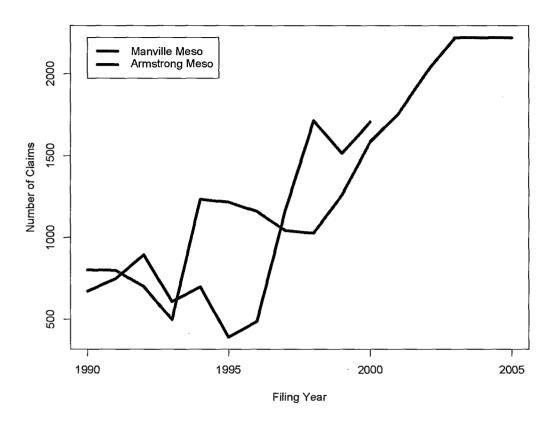
Now in 2006 instead of relying on the Manville and UNR increases in propensities to sue that had occurred a decade ago, we can base our forecasts on actual filing data for the Manville Trust's propensities to sue during 2001 to 2005, the precise five years for which we forecast increasing propensities to sue Armstrong in my November 2003 report.⁶ This provides an improved basis for forecasting likely changes in Armstrong's propensities to sue after 2000. First, we have Manville data about claim trends that are exactly contemporaneous for the "future" period that we need to forecast for Armstrong. Second, because Manville data are universally regarded as the most comprehensive data on asbestos claims filing and have been used repeatedly by analysts in forecasting liabilities for other defendants, they are appropriate for forecasting Armstrong's liabilities. Further, the Manville data are remarkably "clean," current and free of problems such as the need to impute diseases among claims that do not have specific disease (see discussion of this issue in the Armstrong data at Section 6.1.1 above).

Manville's claim filings have continued to increase since Armstrong's bankruptcy filing at the end of 2000. Figure 15 and Figure 16 show respectively the number of mesothelioma and lung cancer claims filed annually against Armstrong and against Manville. On each figure we continue Manville filings after Armstrong's bankruptcy filing and through 2005. The figures show Manville's filings for 2003 through 2005 averaged over those years, because claim filings over those years were distorted by 2003 changes to Manville's claims procedures and to its payment percentage that reduced the amounts paid from 10 percent to 5 percent of the liquidated values of claims. As a result many claimants "accelerated" their filings; claims that would otherwise have been filed in 2004 or 2005 were filed instead in 2003. Consequently, Manville's claim filing trends for the three years are best represented by averaging its claims across 2003, 2004 and 2005 as shown in Figure 15 and Figure 16, below.

^{5.} We adjusted Armstrong's 1999-2000 propensities in five steps so that our forecast propensities in 2001 were the same as Armstrong's actual propensities in 1999-2000 and then increased by one-fourth of the forecast change for each year from 2002 through 2005.

^{6.} Similar data are not available for this period for the UNR Trust.

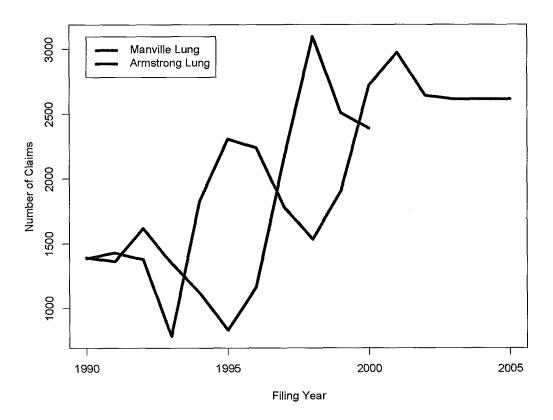
Figure 15: Trends In Armstrong and Manville Mesothelioma Claims (2003-2005 Smoothed)



^{7.} The Manville Trust had notified claimants and their lawyers of these 2003 changes well in advance producing an expected result that many claimants rushed to submit claims to take advantage of Manville's previous TDP and higher payment percentage. The changes and their notice caused claimants to accelerate filings with the Trust: claims that would ordinarily have been filed in 2004 or 2005 were instead filed during 2003. Because of these temporal disturbances during 2003 through 2005, we know that some of Manville's 2003 claims would have been filed in 2004 or 2005 had the Trust not made and announced its changes, but we cannot know how many filings were accelerated. As a result, we can attach no significance to the different levels of filings across each of these three years.

34

Figure 16: Trends In Armstrong and Manville Lung Cancer Claims (2003-2005 Smoothed)



Because they provide better and contemporaneous information, we use these recent Manville data to recalculate rates of increase that we forecast will apply to Armstrong's propensities to sue between 2001 and 2005. Table 16 shows our calculation of the rates of increase in Manville's propensities to sue for each cancer between 2000 and 2003-2005 and compares these to the "general" rates of increase that we had used in my November 2003 report.

Table 16: Comparison of Alternative Estimates of Increase in Propensities to Sue

Disease	Current Manville	General (1990s)
Meso	1.396	1.392
Lung	1.078	1.490
Othc	1.398	1.791

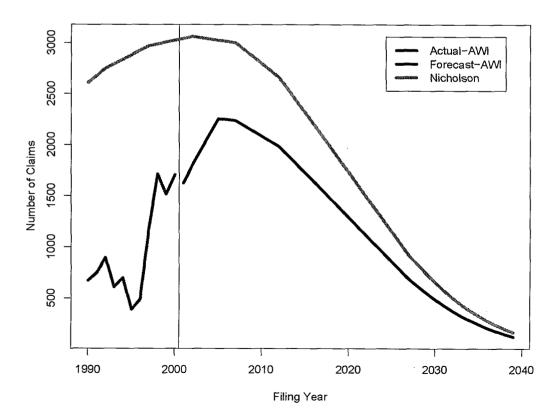
Our current forecast of the rate of increase in mesotheliomas is identical to the rate used in my prior report, but we now forecast lower rates of increase for both lung and other cancers. Table 17 shows our forecast of the rates of annual increases for propensities to sue, again spreading the increase gradually over the "future" five years and the propensity to sue estimates used for each future year.

Table 17: Patterns of Increase in the Propensity to Sue

	Rates of Increase			Propensities to S						
Disease	2001	2002	2003	2004	2005	2001	2002	2003	2004	2005
Meso	1.000	1.099	1.198	1.297	1.396	53.4	58.7	64.0	69.3	74.5
Lung	1.000	1.020	1.039	1.058	1.078	49.2	50.2	51.1	52.1	53.0
Othc	1.000	1.100	1.199	1.299	1.398	56.1	61.7	67.2	72.8	78.4

We then use these forecast propensities to sue for every year after 2000 to forecast the number of future cancer claims that would be filed against Armstrong. Figure 17 presents a graphic summary of the calculation of future mesothelioma claim filings for each future year. The vertical bar at year 2000 represents the time of Armstrong's bankruptcy filing. To the left, the upper curve shows the annual Nicholson forecast of mesothelioma incidence and the lower curve the number of mesothelioma claims filed against Armstrong, the two parameters that are used to calculate the Armstrong propensity to sue. Forecast claims are to the right of vertical bar, with the Nicholson incidence forecast again the upper curve and our forecast of future mesothelioma filings the lower curve. In each future year the forecast number of mesothelioma claim filings is calculated by multiplying the Nicholson incidence for that year (the upper curve) times the propensity to sue for that year. As I have discussed, forecast mesothelioma filings increase until 2005 as the propensity to sue increases and, thereafter, begin to fall slowly at the same rate as Nicholson's forecast of the decrease in annual mesothelioma deaths.

Figure 17: Nicholson Meso Forecasts vs Armstrong Actuals



We carry out similar calculations for lung cancers and other cancers. Table 18 shows our forecast of future claims for each type of cancer through year 2039, the end of our forecast period.

Table 18: Number of Forecast Cancer Claims Filed After December 31, 2000

	Disease					
Model	Meso	Lung	Othc			
Nicholson	47,973	39,715	. 15,342			

Figure 18 shows the context of our forecast of Armstrong's future mesothelioma claims comparing both past and forecast future claims for Armstrong from 1990 through 2005 with the number of mesothelioma claims received by Manville over the same period (again averaging the 2003-2005 filings because of the 2003 accelerated filings). Figure 19 is a similar comparison for lung cancer claims.

Figure 18: Trends In Armstrong and Manville Mesothelioma Claims (2003-2005 Smoothed)

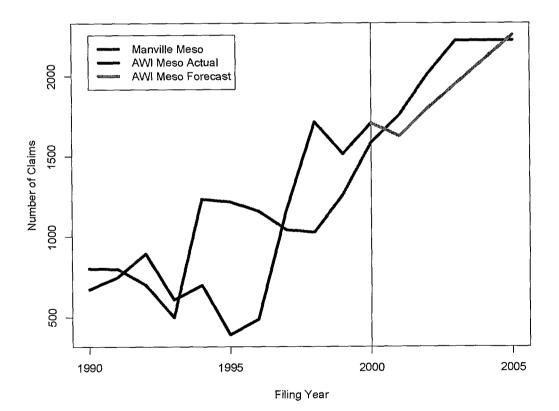
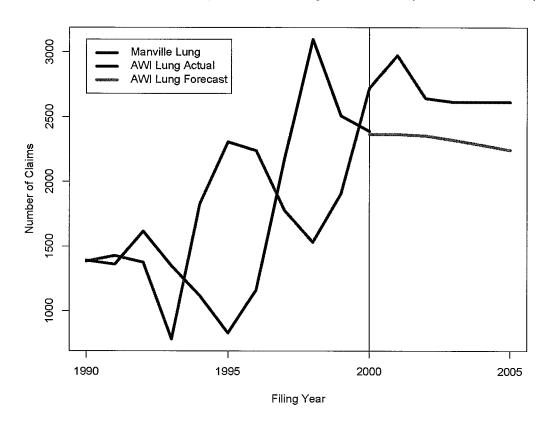


Figure 19: Trends In Armstrong and Manville Lung Cancer Claims (2003-2005 Smoothed)



6.2.4. Projection of Future Nonmalignancy Claims

To forecast the number of asbestosis and pleural claims that will be filed against Armstrong in future years we do not use the same method that we use to forecast Armstrong's future cancer claims. First, there are no published, peer-reviewed epidemiological projections for the incidence of nonmalignant asbestos-related diseases that are like the Nicholson cancer forecasts and no epidemiological forecast of nonmalignant asbestos-related disease has been tested and confirmed by actual experience as have the Nicholson cancer forecasts. Second, the disease processes for asbestos-related cancers and asbestos-related nonmalignant diseases differ. Unlike the asbestosrelated cancers, which become known to victims abruptly through the rapid onset of symptoms and diagnoses, nonmalignant diseases are insidious. Asbestosis and pleural diseases are progressive diseases that develop gradually over time with the accumulation of scarring of the lungs or pleura. Because dyspnea (shortness of breath) and other effects of these disease increase over time, victims of these diseases may be unaware of the earliest onset of symptoms or may attribute breathing problems to their increasing age or other possible causes. So unlike the asbestos-related cancers, which become known to victims by a signal event--the diagnosis of a grave disease--that will be most likely to trigger claim filing, victims of nonmalignant asbestos diseases may become aware of their diseases gradually or they may be made aware by a medical diagnosis of asbestosis or pleural disease that could be made early or later in the progression of the disease. Consequently, filings of claims for asbestosis and pleural disease cannot be predicted from epidemiological evidence in the same manner as can filings of asbestos-related cancers.

In my November 2003 report I based my forecast of Armstrong's future nonmalignant claims on the historically stable relationship between the number of cancer and nonmalignant filings against Armstrong. The past trend in annual filings of nonmalignant claims against Armstrong is similar to its trends for cancer claims (Table 13). Like cancer filings, the Georgine class action suppressed filings during the mid-1990s, but nonmalignant filings rebounded greatly after the U.S. Supreme Court ended Georgine in mid-1997 and, as with cancer filings, nonmalignancy filings remained at these new, higher levels until the time of Armstrong's bankruptcy. Figure 20, below, shows Armstrong's annual nonmalignant claim filings.

To facilitate comparison of trends in cancer and nonmalignant claim filings, Figure 21 shows annual filings in each year from 1980 through 2000 using different scales for cancer claims and for nonmalignant claims. As Figure 21 demonstrates, throughout twenty years of its asbestos litigation the trends in annual filings of cancer and nonmalignant claims filed against Armstrong have been similar. While there is some divergence in trends during the 1980s, trends for both types of disease are highly similar since the early 1990s.

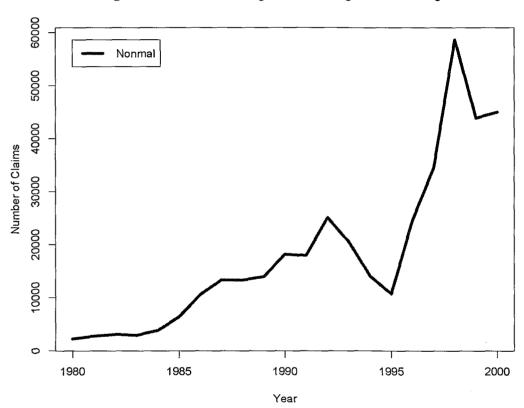


Figure 20: Annual Nonmalignant Claims Against Armstrong

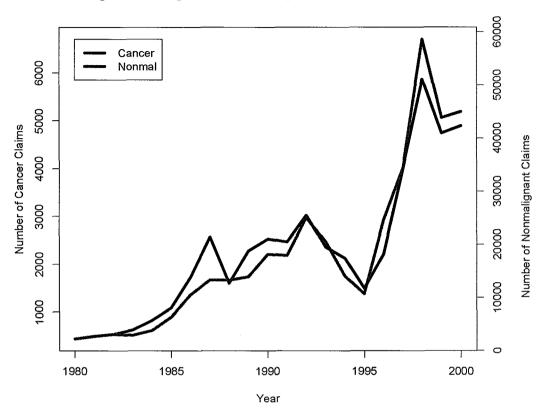


Figure 21: Comparison of Nonmalignant and Cancer Claim Counts

Claims filing trends for nonmalignant and malignant asbestos-related diseases since the early 1990s correspond closely because those filings are generated by similar sets of social, institutional and behavioral determinants. As Figure 21 demonstrates, filings of asbestos nonmalignant claims in a year can be predicted well from filings of cancer claims. The stable relationship between filings of cancer and nonmalignant claims is one of the most common patterns in asbestos litigation, not only for Armstrong, but for other asbestos defendants as well.

In my earlier report forecasting Armstrong's liability I used this consistent relationship between cancer and nonmalignant claims filings to project future nonmalignancy claims based on the historic ratio of nonmalignancy to cancer claims against Armstrong. We call the ratio of nonmalignant to cancer filings the "nonmalignant multiplier". In our forecasts for Armstrong, we calculated the nonmalignant multiplier during 1999 and 2000 calculating the ratio of nonmalignant claim filings to cancer claim filings during those years. We then estimated the number of nonmalignancy claims that will be filed in a future year by multiplying our projection of cancer claims for that year by the nonmalignant multiplier or ratio of nonmalignant to cancer claims.

Now, however, recent changes in the litigation environment have disturbed this historic stability between cancer and nonmalignancy filings. While cancer filings have continued to increase in the last few years, filings of nonmalignant claims have fallen. Some of the decrease in nonmalignant filings results from the U.S. Senate's extended consideration of asbestos legislation that would create a national compensation fund and eliminate asbestos litigation. The possibility of such legislation has broadly affected asbestos litigation, resulting in fewer settlements of asbestos law suits and reduced filings of new law suits. Given uncertainties about whether or not newly filed

law suits would ever result in payment, plaintiff's lawyers have become unwilling to spend the work and money required to prepare new cases, particularly nonmalignant claims. This suppression of claim filings might be transitory and filings might rebound should the prospect of legislation disappear.

However, other developments suggest that filings of nonmalignant claims may never rebound to their great numbers of several years ago. First, several states that have been centers of much asbestos litigation have adopted new statutes that will limit the number of new law suits for nonmalignant claims in those states, primarily by establishing medical criteria that plaintiffs must establish in order to bring suit. Second, as I discussed above, courts and defendants have documented the troubling practices of some medical providers who have examined and prepared documents to support many plaintiffs' claims for nonmalignant injuries. In the past a significant fraction of law suits for nonmalignant diseases have presented medical documents from doctors or medical facilities who have been criticized. This criticism and attention will likely reduce the number of future law suits for nonmalignant claims. Third, some plaintiffs' law firms have seemed to redirect their efforts in recruiting and filing asbestos injury claims, concentrating increasingly on more valuable and less controversial cancer claims. If this redirection by law firms continues, it could reshape asbestos litigation.

For all these reasons we expect that the historically stable pattern between the number cancer and nonmalignant claims will change and that nonmalignant claim filings will decrease in future years, both relative to cancer filings and in absolute numbers. Although nonmalignant claim filings increased after 2000 among defendants who continued to receive asbestos claims, we forecast instead that beginning in 2001 future nonmalignant claims against Armstrong will decrease steadily from their levels before Armstrong's bankruptcy. To forecast Armstrong's future nonmalignant claim filings, we start with the level of nonmalignant claims that it received in 1999 and 2000 and then forecast that future claims will decrease at a rate parallel to the Nicholson forecast of the incidence of future asbestos-related cancers.

Figure 22 shows our long term forecast of future Armstrong claims. The figure shows the number of claims filed against Armstrong annually prior to the bankruptcy, showing separately our forecasts for cancer and nonmalignant claims: cancer claims appear at the bottom and nonmalignant claims appear above. While we forecast that Armstrong's cancer claim filings will continue to increase between 2001 and 2005 before they turn and decline thereafter, our forecasts of future nonmalignant claims start in 2001 lower than the level of such claims during 2000 and decline year after year thereafter.

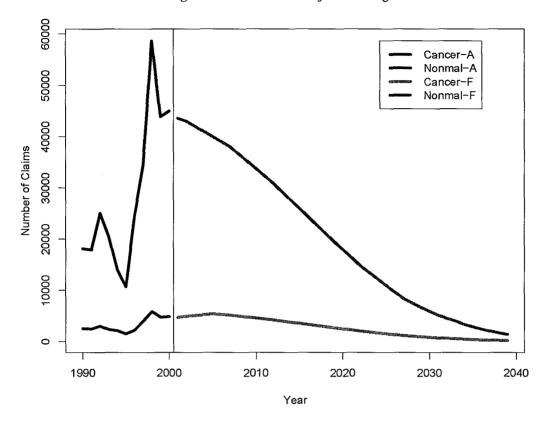


Figure 22: Actual And Projected Filings

6.2.5. Forecast Number of Future Claims

Table 19 shows the results of the forecast. Appendix Table A3 shows the forecast filings for each disease for each year from 2001 to 2039.

 Table 19: Number of Forecast Claims Filed After December 31, 2000

Model	Meso	Lung	Othc	Nonm	Total
Nicholson	47,973	39,715	15,342	777,585	880,615

6.2.6. Estimating Liability for Forecast Future Claims

To value future claims we used the same values that we used for valuing pending claims, the average settlement values and payment rates shown in Table 11 above. Our forecast average resolution values are obtained by multiplying settlement values and payment rates for each disease.

In forecasting the values of future claims, we assumed that payments would be adjusted for future inflation at a rate of 2.5 percent per year. This rate was provided by Joe Radecki, financial adviser to the Legal Representative, forecasts of the Congressional Budget Office at the time of Armstrong's bankruptcy and the rate of inflation since then. Table 20 shows the value of future

claims using those values shown in Table 11 adjusted for future inflation. Table A4 shows the value of future claims for each disease for each year from 2001 to 2039.

Table 20: Forecast Indemnity for Future Claims after December 31, 2000

	Disease					
Model	Meso	Lung	Othc	Nonm	Total	
Nicholson	\$7,294	\$949	\$134	\$3,089	\$11,466	

Notes: Millions of dollars of the year when paid. Future claims are assumed to settle 2 years after filing. Indemnity is inflation adjusted at 2.5 percent per year.

The results in Table 20 estimate the value that we forecast for future claims in terms of the dollars of the year when claims will be paid. However, these do not represent the present value of Armstrong's liabilities. Since these liabilities will mostly arise in future years, they must be reduced to present value to account for the time value of money. Table 21 shows the estimated present value of these liabilities, based on a discount rate of 5.42% provided by Joe Radecki.

Table 21: Present Value (PV) of Future Claims as of December 31, 2000

Model	Meso	Lung	Othc	Nonm	Total
Nicholson	\$3,296	\$485	\$67	\$1,515	\$5,363

Notes: Millions of December 2000 dollars. Future claims are assumed to settle 2 years after filing. Indemnity is inflation adjusted using actual inflation through 2003, 2.5% thereafter. Discount rate is 5.42%.

6.4. Armstrong's Total Asbestos Liability, December 2000

To estimate Armstrong's full obligations for present and future asbestos claims, we added its forecast indemnity for pending claims and its forecast indemnity for future claims (we do not address Armstrong's costs to defend and administer both groups of claims in this report). Table 22 shows these calculations.

Table 22: Armstrong's Nominal Liability for Pending and Future Claims As of December 31, 2000

Type of Expense	Increase
Indemnity, Pending Claims Indemnity, Future Claims	\$820 11,466
Total Liability	\$12,286

Notes: Millions of December 2000 dollars. Pending claims are assumed to average 2 years to settlement. Future claims are assumed to settle 2 years after filing. Indemnity is inflation adjusted at 2.5% per year.

Table 23 shows the present value of Armstrong's forecast liability for pending and future claims, as of December 31, 2000, using the discount rate assumptions described above.

Table 23: PV of Armstrong's Total Liability for Indemnity: December 31, 2000

Type of Expense	Increase
Indemnity, Pending Claims Indemnity, Future Claims	\$758 5,363
Total Liability	\$6,121

Notes: Millions of December 2000 dollars. Pending claims are assumed to average 2 years to settlement. Future claims are assumed to settle 2 years after filing. Indemnity is inflation adjusted using actual inflation through 2003, 2.5% thereafter. Discount rate is 5.42%.

Figure 23 shows how the present values of Armstrong's obligations for future claims are distributed among the different types of diseases for our preferred forecasting model.

Figure 23: Distribution of PV of Total Liability, by Disease

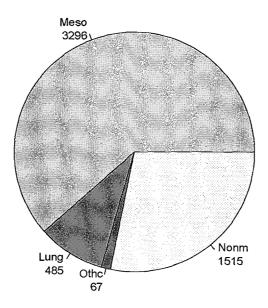
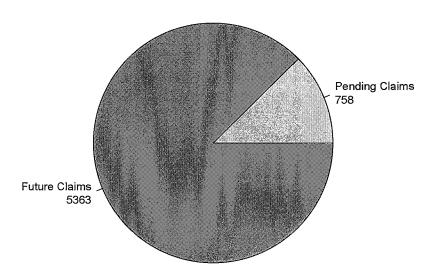


Figure 24 shows how the present values of Armstrong's obligations are distributed among indemnity for pending claims and indemnity for future claims.

Figure 24: Distribution of PV-Liabilities by Expense Type: Future Increase Model



7. Sensitivity Analyses

Forecasts of asbestos liabilities are inherently uncertain. Our forecasts have strong bases--epidemiological forecasts of asbestos diseases that have been tested and confirmed by twenty years of SEER counts of mesothelioma deaths, Armstrong's own recent claims history, contemporaneous data and trends concerning claim filings and payments for defendants whose experience we believe is relevant to Armstrong's liability, and conservative assumptions about future dismissal rates. However our forecasts of Armstrong's future liability would differ somewhat if we had made different assumptions about epidemiology, propensities to sue, payment amounts, or other factors in future years. This section examines how forecasts would have differed under different assumptions.

We define and then report on the results of systematically varying seven types of parameters:

- the choice of epidemiological projections: Nicholson vs. KPMG (see below for a discussion of the KPMG model).
- use of cancer propensity to sue assumptions from my November 2003 report: (a) no change from 1999-2000 base year and (b) increases based on Manville and UNR filings during the 1990s.
- use of dollar amounts that vary according to the experiences of other defendants.

- use of alternative payment rates.
- use of an alternative inflation rate assumption.
- use of alternative discount rates.
- changes in filings and settlements that would result if national legislation were passed that would treat most nonmalignant claims as not compensable.

We first define these alternatives, then we present the results from systematically varying them. Our analyses and reported results are for NPV of total liability based on the alternative assumptions examined in the sensitivity analyses.

7.1. Alternative Parameter Selections

7.1.1. Alternative Epidemiological Models

In 1992 the consulting firm KPMG-Peat Marwick adjusted the Nicholson epidemiological forecasts as part of their engagement in the bankruptcy proceedings of National Gypsum. KPMG retained most of elements of the Nicholson forecasts but used more recent Labor Department data and alternative medical models to estimate the probabilities of mesothelioma and lung cancer. As shown in Figure 12, above, the KPMG forecasts are a reasonable, although less preferable alternative to the original Nicholson forecasts of asbestos related cancer deaths. The Nicholson forecasts are preferable because they have been more closely confirmed by subsequent SEER data on annual mesothelioma deaths. To examine the effects of using the specific Nicholson epidemiological forecasts of future cancer deaths, we also forecast future claims and liabilities using the KPMG forecasts.

7.1.2. Alternative Rates of Increase in Propensity to Sue

Throughout this report we have presented forecasts for the assumption that propensities to sue for cancer claims would increase like Manville's, increasing over five years by the ratio of Manville's 2001-2005 propensity to sue divided by its 2000 propensity to sue. In my November 2003 report, I presented two other alternatives: (a) that propensities to sue would not increase at all, and (b) that propensities to sue would increase according to the experience of Manville and UNR during the 1990s. We include these two alternatives for our current sensitivity analyses. Table 24 contrasts the rates of increase over the five years 2001-2005.

Type of Increase Filing Disease Year Manville 1990s Flat Meso 2001 1.000 1.000 1.000 2002 1.099 1.098 1.000 2003 1.198 1.196 1.000 2004 1.297 1.294 1.000 2005 1.396 1.392 1.000 2001 1.000 Lung 1.000 1.000 2002 1.020 1.123 1.000 2003 1.039 1.245 1.000 2004 1.058 1.368 1.000

1.078

1.000

1.100

1.199

1.299

1.398

1.490

1.000

1.198

1.396

1.593

1.791

1.000

1.000

1.000

1.000

1.000

1.000

2005

2001

2002

2003

2004

2005

Othc

Table 24: Alternative Increases In Propensity to Sue

Note: Base case is shown in red.

7.1.3. Alternative Dollar Amounts

Our base case starts with the year 2000 settlement amounts and rescales these by the increase observed from 1999 to 2000 for each disease. We include other variations in our sensitivities: (a) 2000 settlement values and (b) the average of 1999-2000, which was the method used in my November 2003 report (which we couple with use of the payment rates for 1999-2000, which were the parameters from my November 2003 report). These are shown in the following Table 25.

Table 25: Alternative Settlement Values

	Average Settlement Value				
Description	Meso	Lung	Othc	Nonm	
2000 Amounts with Increase	\$144,109	\$24,077	\$8,726	\$4,571	
2000 Amounts , No Increase	87,286	16,480	6,855	3,608	
Nov03 Method (1999-2000 Experience)	69,946	13,742	6,131	3,152	

Note: Base case is shown in red.

7.1.4. Alternative Payment Rates

The primary analyses presented in this report assume that after leaving CCR Armstrong's payment rates will go down. Because of Armstrong's December 2000 bankruptcy filing, we have no experience about post-CCR payment rates for Armstrong so we looked to the post-CCR experience for T&N to develop estimates of the percent of claims that Armstrong would close with payment. Our base case approximates the T&N experience for cancers at 70 percent and

reduces this to 60% for nonmalignants. As sensitivity variations we used (a) T&N's actual payment rates after CCR, which are lower for mesothelioma and lung cancer, but higher for other cancers and nonmalignancies and (b) Armstrong's actual payment rates during 1999-2000.

Table 26: Alternative Payment Rates

	Percent Paid				
Description	Meso	Lung	Othc	Nonm	
Armstrong Post CCR Assumption T&N Post CCR Experience	70.0 65.8	70.0 68.9	70.0 73.1	60.0 97.1	

Note: Base case is shown in red.

7.1.5. Alternative Inflation Rates

We use a 2.5 percent inflation rate, provided by Joe Radecki of Piper Jaffrey, financial analyst for the Future Claimants' Legal Representative. At the time of the bankruptcy, CBO was assuming 2.5 percent in its analyses, and the rate of inflation over the years 2000 to 2005 was actually 2.5 percent. Now, however, CBO is assuming 2.2 percent, so we examine the effect of this assumption on our projections. It is plausible that the real rate of return (the difference between discount rates and inflation rates) will remain constant. Nevertheless, we examine the effect of inflation holding the discount rate constant.

7.1.6. Alternative Discount Rates

The financial analyst for the Future Claimants has suggested a discount rate of 5.42 percent. We examine the sensitivity of bracketing this at (a) 5 percent and (b) 6 percent.

7.1.7. Tort Reform Alternative

Ohio, Texas, Florida and other states have recently passed legislation which will prevent tort compensation for some victims of asbestos-related nonmalignant diseases. Proposed Congressional "criteria" legislation would, in effect, extend these laws nationally. As a sensitivity we examine a variation that assumes similar legislation on a national level. We assume first that 60 percent of the nonmalignant claims will get zero value (claims will still be filed, so our forecasts of the number of filings will not change--certain claims will just not be paid). Because the legislation is intended to eliminate the least severe nonmalignant claims, we assume that will affect the 60 percent of nonmalignants who previously received the lowest values, i.e. the 60th percentile and below. Those nonmalignant claimants who continue to receive compensation are the claimants who were in the top 40 percent of historic settlement values among nonmalignant claimants. We also assume behavioral change among courts and lawyers: without the lesser-valued nonmalignant claims, both courts and plaintiffs' lawyers will devote more money and effort on the cancer claims and so resolution values for cancers will increase by 10 percent. The net change in resolution amounts is described in Table 27. We apply these resolution amounts to our base forecasts below.

Table 27: Alternative Payment Parameters If Ohio Legislation Expands Nation-Wide

	Avg Settlement		Payme	nt Rate	Avg Resolution		
Disease	Current	Natl Legis	Current	Natl Legis	Current	Natl Legis	
Meso	\$144,109	\$158,520	70%	70%	\$100,876	\$110,964	
Lung	24,077	26,485	70	70	16,854	18,540	
Othc	8,726	9,599	70	70	6,108	6,719	
Nonm	4,571	9,214	60	24	2,743	2,211	

Notes: Base case is shown in red. Nonmalignant resolution averages decrease because 60 percent of nonmalignant claimants who historically received the lowest settlement values would now receive no payment. This results in an average resolution that is 19 percent lower for Armstrong.

7.2. Results of Alternative Parameter Selections

Table 28 and Table 29 display the sensitivity results for all variations described above. Table 28 contrasts the net present value of total liability with the base case. Table 29 shows their percentage differences.

Table 28: Sensitivity Analysis Results: Net Present Value

Parameter	Variation	Meso	Lung	Othc	Nonm	Total
Epidemiology	Nicholson	\$3,603	\$593	\$80	\$1,846	\$6,121
	KPMG	3,343	591	80	1,744	5,759
Propensity to Sue	Manville Increase	3,603	593	80	1,846	6,121
	1990s Increase	3,595	744	96	2,662	7,097
	Flat	2,775	564	64	1,846	5,248
Dollar Values	2000 Amounts with Increase	3,603	593	80	1,846	6,121
	2000 Amounts , No Increase	2,182	406	63	1,457	4,108
	Nov03 Method (1999-2000 Experience)	2,394	467	78	2,007	4,946
Payment Rates	Armstrong Post CCR Assumption T&N Post CCR Experience Nov03 Method (1999-2000 Experience)	3,603 3,385 4,932	593 583 819	80 84 112	1,846 2,988 2,910	6,121 7,039 8,772
Inflation Rate	2.5 Percent	3,603	593	80	1,846	6,121
	2.2 Percent	3,473	576	78	1,791	5,917
Discount Rate	5.42 Percent	3,603	593	80	1,846	6,121
	5.00 Percent	3,785	615	83	1,921	6,404
	6.00 Percent	3,374	563	76	1,750	5,763
Tort Environment	Current	3,603	593	80	1,846	6,121
	National Legislation	3,964	652	88	1,488	6,192

Note: Base case is shown in red.

Table 29: Sensitivity Analysis Results: Percent Changes in Net Present Value

Parameter	Variation	Meso	Lung	Othc	Nonm	Total
Epidemiology	Nicholson KPMG	-7.2	-0.2	0.0	-5.5	-5.9
Propensity to Sue	Manville Increase 1990s Increase Flat	-0.2 -23.0	+25.5 -4.8		+44.2 0.0	+15.9 -14.3
Dollar Values	2000 Amounts with Increase 2000 Amounts , No Increase Nov03 Method (1999-2000 Experience)	-39.4 -33.6	-31.6 -21.2	-21.4 -2.5	-21.1 +8.7	-32.9 -19.2
Payment Rates	Armstrong Post CCR Assumption T&N Post CCR Experience Nov03 Method (1999-2000 Experience)	-6.1 +36.9	-1.6 +38.2	+4.5 +39.6	+61.9 +57.7	+15.0 +43.3
Inflation Rate	2.5 Percent 2.2 Percent	-3.6	-2.8	-3.0	-3.0	-3.3
Discount Rate	5.42 Percent 5.00 Percent 6.00 Percent	+5.0 -6.4	+3.9 -4.9	+4.1 -5.2	+4.1 -5.2	+4.6 -5.9
Tort Environment	Current National Legislation	+10.0	+10.0	+10.0	-19.4	+1.1

Note: Base case is shown in red.

Table 29 shows that the forecast results presented in the body of this report are intermediate between these variations. Forecasts using the Nicholson epidemiological model are about six percent greater than those based on the KPMG alternative. Forecasts using the alternative propensity to sue variations (flat, 1990s increase) are about 15 percent different from the Manville-based increases of 2001-2005. The dollar values and payment rates affect the outcomes considerably: the no-increase 2000 settlement averages dropping values by about 33 percent, although it is implausible that payments would be that low along with the low payment rates of the baseline case. With higher payment rates and the baseline dollar values, liability goes up by between 15 and 43 percent. Inflation and discount rates do not seem to matter very much, affecting estimates uniformly by less than 6 percent. Finally, the national legislation model has the desired reduction in nonmalignant payments, but the assumed greater attention to cancers offsets that effect and produces, on balance, a slightly positive increase in liability.

8. Rule 26 Disclosures and Signature

DATA CONSIDERED: In reaching the opinions and conclusions set forth in this Report, I have considered the following information: my background, training, experience and knowledge of the asbestos litigation developed over the past 25 years, the items of data explicitly identified in the report, publicly available sources of information concerning inflation rates, publicly available documents about Armstrong including its Disclosure Statement and its 10-Ks and 10-Qs filed during 1999 and 2000, publicly available data from the National Cancer Institute's SEER registry, discount rates provided by Joe Radecki, Piper Jaffrey, and the items identified on Exhibit 3 of this report attached.

EXHIBITS: The exhibits which summarize my opinions are included in the graphics and tables in the report and in the appendices to the report.

QUALIFICATIONS: My qualifications to perform this analysis and provide expert testimony are set forth in my C.V., a copy of which is attached as Exhibit 1.

PUBLICATIONS: Any publications I have authored within the past ten years are set forth in my C.V.

COMPENSATION: My compensation for services rendered in this case is set forth in the fee applications Legal Analysis Systems files on a regular basis with the Bankruptcy Court. At present, my hourly rate is \$700.

PRIOR TESTIMONY: A listing of all cases in which I have testified as an expert at either trial or deposition within the past four years is attached as Exhibit 2.

I reserve the right to modify this report as new information becomes available between now and the time of trial. I anticipate that I will review the expert witness reports of opposing expert(s) and offer my opinions about their analyses and conclusions in rebuttal testimony.

/s/ Mark A. Peterson

Mark A. Peterson, J.D., Ph.D. LEGAL ANALYSIS SYSTEMS

Appendix A - Year by Disease Projections

This appendix provides the year by disease projections of Nicholson and KPMG (cancer incidences) and LAS (OC and Fibreboard filings as of October 5, 2000).

Table A1: Nicholson Epidemiological Projections

Death		Disease		Total	Death		Disease		Total
Year	Meso	Lung	Othc	Cancers	Year	Meso	Lung	Othc	Cancers
1970	1,010	2,909	963	4,882	2005	3,023	4,230	1,143	8,396
1971	1,046	3,098	998	5,142	2006	3,011	4,075	1,099	8,185
1972	1,040	3,286	1,034	5,402	2007	2,999	3,921	1,055	7,975
1973	1,151	3,502	1,065	5,718	2008	2,931	3,734	1,006	7,672
1974	1,219	3,719	1,096	6,034	2009	2,864	3,547	958	7,369
1975	1,288	3,935	1,128	6,351	2010	2,796	3,361	909	7,066
1976	1,356	4,152	1,159	6,667	2011	2,729	3,174	861	6,763
1977	1,425	4,368	1,190	6,983	2012	2,661	2,987	812	6,460
1978	1,495	4,505	1,227	7,228	2013	2,545	2,811	762	6,119
1979	1,565	4,643	1,264	7,472	2014	2,429	2,635	713	5,778
1980	1,635	4,780	1,302	7,717	2015	2,314	2,460	663	5,436
1981	1,705	4,918	1,339	7,961	2016	2,198	2,284	614	5,095
1982	1,775	5,055	1,376	8,206	2017	2,082	2,108	564	4,754
1983	1,900	5,138	1,400	8,438	2018	1,965	1,937	519	4,421
1984	2,024	5,222	1,424	8,670	2019	1,847	1,766	474	4,088
1985	2,149	5,305	1,447	8,901	2020	1,730	1,596	430	3,755
1986	2,273	5,389	1,471	9,133	2021	1,612	1,425	385	3,422
1987	2,398	5,472	1,495	9,365	2022	1,495	1,254	340	3,089
1988	2,468	5,477	1,495	9,440	2023	1,379	1,132	307	2,819
1989	2,538	5,482	1,495	9,515	2024	1,264	1,011	274	2,549
1990	2,608	5,487	1,494	9,589	2025	1,148	889	242	2,279
1991	2,678	5,492	1,494	9,664	2026	1,033	768	209	2,009
1992	2,748	5,497	1,494	9,739	2027	917	646	176	1,739
1993	2,792	5,449	1,480	9,722	2028	827	575	157	1,558
1994	2,836	5,402	1,466	9,705	2029	740	508	138	1,386
1995	2,881	5,354	1,453	9,687	2030	657	446	122	1,225
1996	2,925	5,307	1,439	9,670	2031	579	388	105	1,072
1997	2,969	5,259	1,425	9,653	2032	507	336	92	935
1998	2,987	5,146	1,395	9,528	2033	443	316	79	837
1999	3,005	5,033	1,365	9,403	2034	383	246	67	696
2000	3,024	4,919	1,334	9,277	2035	332	208	57	596
2001	3,042	4,806	1,304	9,152	2036	282	174	47	503
2002	3,060	4,693	1,274	9,027	2037	240	144	38	423
2003	3,048	4,539	1,230	8,817	2038	201	117	32	351
2004	3,036	4,384	1,186	8,606	2039	169	94	26	290

Note: Nicholson's projections run through 2030. LAS extended those to 2039 using the year by disease rates of decline derived from the KPMG projections, below.

Table A2: KPMG Epidemiological Projections

Year Meso Lung Othc Cancers Year Meso Lung Othc Cancers 1970 861 3,234 1,196 5,291 2005 2,347 3,638 990 6,975 1971 931 3,592 1,130 5,653 2006 2,294 3,474 945 6,713 1972 1,003 3,721 1,171 5,895 2007 2,234 3,311 900 6,445 1973 1,079 3,846 1,211 6,136 2008 2,173 3,149 857 6,179 1974 1,157 3,974 1,251 6,382 2009 2,105 2,989 813 5,907 1975 1,237 4,147 1,305 6,689 2010 2,034 2,831 769 5,632 1977 1,386 4,428 1,204 7,018 2012 1,880 2,520 686 5,086 1978 1,545 4,728 <td< th=""><th>Death</th><th></th><th>Disease</th><th></th><th>Total</th><th>Death</th><th></th><th>Disease</th><th></th><th>Total</th></td<>	Death		Disease		Total	Death		Disease		Total
1971 931 3,592 1,130 5,653 2006 2,294 3,474 945 6,713 1972 1,003 3,721 1,171 5,895 2007 2,234 3,311 900 6,445 1973 1,079 3,846 1,211 6,136 2008 2,173 3,149 857 6,179 1974 1,157 3,974 1,251 6,382 2009 2,105 2,989 813 5,907 1975 1,237 4,147 1,305 6,689 2010 2,034 2,831 769 5,634 1976 1,386 4,428 1,204 7,018 2012 1,880 2,620 686 5,086 1978 1,465 4,577 1,246 7,288 2013 1,798 2,371 644 4,813 1979 1,545 4,728 1,287 7,560 2014 1,713 2,224 604 4,541 1980 1,628 4,897 <	Year	Meso	Lung	Othc	Cancers	Year	Meso	Lung	Othc	Cancers
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1986 2,102 5,431 1,478 9,011 2021 1,094 1,317 358 2,769 1987 2,173 5,441 1,480 9,094 2022 1,009 1,206 328 2,543 1988 2,242 5,441 1,480 9,163 2023 928 1,101 300 2,329 1989 2,306 5,433 1,478 9,217 2024 850 998 272 2,120 1990 2,367 5,410 1,472 9,249 2025 775 902 245 1,922 1991 2,418 5,362 1,458 9,238 2026 703 811 221 1,735 1992 2,459 5,293 1,440 9,192 2027 634 724 197 1,555 1993 2,493 5,218 1,420 9,131 2028 571 643 175 1,389 1994 2,521 5,135 1,397	1984	1,949	5,338	1,452	8,739	2019	1,269	1,553	422	3,244
1987 2,173 5,441 1,480 9,094 2022 1,009 1,206 328 2,543 1988 2,242 5,441 1,480 9,163 2023 928 1,101 300 2,329 1989 2,306 5,433 1,478 9,217 2024 850 998 272 2,120 1990 2,367 5,410 1,472 9,249 2025 775 902 245 1,922 1991 2,418 5,362 1,458 9,238 2026 703 811 221 1,735 1992 2,459 5,293 1,440 9,192 2027 634 724 197 1,555 1993 2,493 5,218 1,420 9,131 2028 571 643 175 1,389 1994 2,521 5,135 1,397 9,053 2029 510 567 154 1,231 1995 2,538 5,037 1,370 <t< td=""><td>1985</td><td>2,030</td><td>5,401</td><td>1,469</td><td>8,900</td><td>2020</td><td>1,180</td><td>1,434</td><td>390</td><td>3,004</td></t<>	1985	2,030	5,401	1,469	8,900	2020	1,180	1,434	390	3,004
1988 2,242 5,441 1,480 9,163 2023 928 1,101 300 2,329 1989 2,306 5,433 1,478 9,217 2024 850 998 272 2,120 1990 2,367 5,410 1,472 9,249 2025 775 902 245 1,922 1991 2,418 5,362 1,458 9,238 2026 703 811 221 1,735 1992 2,459 5,293 1,440 9,192 2027 634 724 197 1,555 1993 2,493 5,218 1,420 9,131 2028 571 643 175 1,389 1994 2,521 5,135 1,397 9,053 2029 510 567 154 1,231 1995 2,538 5,037 1,370 8,945 2030 452 497 136 1,085 1996 2,546 4,928 1,341 8,	1986	2,102	5,431	1,478	9,011	2021	1,094	1,317	358	2,769
1989 2,306 5,433 1,478 9,217 2024 850 998 272 2,120 1990 2,367 5,410 1,472 9,249 2025 775 902 245 1,922 1991 2,418 5,362 1,458 9,238 2026 703 811 221 1,735 1992 2,459 5,293 1,440 9,192 2027 634 724 197 1,555 1993 2,493 5,218 1,420 9,131 2028 571 643 175 1,389 1994 2,521 5,135 1,397 9,053 2029 510 567 154 1,231 1995 2,538 5,037 1,370 8,945 2030 452 497 136 1,085 1996 2,546 4,928 1,341 8,815 2031 398 431 117 946 1997 2,547 4,807 1,307 8,661<	1987	2,173	5,441	1,480	9,094	2022	1,009	1,206	328	2,543
1990 2,367 5,410 1,472 9,249 2025 775 902 245 1,922 1991 2,418 5,362 1,458 9,238 2026 703 811 221 1,735 1992 2,459 5,293 1,440 9,192 2027 634 724 197 1,555 1993 2,493 5,218 1,420 9,131 2028 571 643 175 1,389 1994 2,521 5,135 1,397 9,053 2029 510 567 154 1,231 1995 2,538 5,037 1,370 8,945 2030 452 497 136 1,085 1996 2,546 4,928 1,341 8,815 2031 398 431 117 946 1997 2,547 4,807 1,307 8,661 2032 348 373 101 822 1998 2,543 4,682 1,273 8,498 <td>1988</td> <td>2,242</td> <td>5,441</td> <td>1,480</td> <td>9,163</td> <td>2023</td> <td>928</td> <td>1,101</td> <td>300</td> <td>2,329</td>	1988	2,242	5,441	1,480	9,163	2023	928	1,101	300	2,329
1991 2,418 5,362 1,458 9,238 2026 703 811 221 1,735 1992 2,459 5,293 1,440 9,192 2027 634 724 197 1,555 1993 2,493 5,218 1,420 9,131 2028 571 643 175 1,389 1994 2,521 5,135 1,397 9,053 2029 510 567 154 1,231 1995 2,538 5,037 1,370 8,945 2030 452 497 136 1,085 1996 2,546 4,928 1,341 8,815 2031 398 431 117 946 1997 2,547 4,807 1,307 8,661 2032 348 373 101 822 1998 2,543 4,682 1,273 8,498 2033 303 346 87 736 1999 2,534 4,550 1,238 8,322 2034 262 271 74 607 2000 2,522 4,414 1,201 8,137 2035 226 228 62 516 2001 2,497 4,265 1,159 <	1989	2,306	5,433	1,478	9,217	2024	850	998	272	2,120
1992 2,459 5,293 1,440 9,192 2027 634 724 197 1,555 1993 2,493 5,218 1,420 9,131 2028 571 643 175 1,389 1994 2,521 5,135 1,397 9,053 2029 510 567 154 1,231 1995 2,538 5,037 1,370 8,945 2030 452 497 136 1,085 1996 2,546 4,928 1,341 8,815 2031 398 431 117 946 1997 2,547 4,807 1,307 8,661 2032 348 373 101 822 1998 2,543 4,682 1,273 8,498 2033 303 346 87 736 1999 2,534 4,550 1,238 8,322 2034 262 271 74 607 2000 2,522 4,414 1,201 8,137	1990	2,367	5,410	1,472	9,249	2025	775	902	245	1,922
1993 2,493 5,218 1,420 9,131 2028 571 643 175 1,389 1994 2,521 5,135 1,397 9,053 2029 510 567 154 1,231 1995 2,538 5,037 1,370 8,945 2030 452 497 136 1,085 1996 2,546 4,928 1,341 8,815 2031 398 431 117 946 1997 2,547 4,807 1,307 8,661 2032 348 373 101 822 1998 2,543 4,682 1,273 8,498 2033 303 346 87 736 1999 2,534 4,550 1,238 8,322 2034 262 271 74 607 2000 2,522 4,414 1,201 8,137 2035 226 228 62 516 2001 2,497 4,265 1,159 7,921	1991	2,418	5,362	1,458	9,238	2026	703	811	221	1,735
1994 2,521 5,135 1,397 9,053 2029 510 567 154 1,231 1995 2,538 5,037 1,370 8,945 2030 452 497 136 1,085 1996 2,546 4,928 1,341 8,815 2031 398 431 117 946 1997 2,547 4,807 1,307 8,661 2032 348 373 101 822 1998 2,543 4,682 1,273 8,498 2033 303 346 87 736 1999 2,534 4,550 1,238 8,322 2034 262 271 74 607 2000 2,522 4,414 1,201 8,137 2035 226 228 62 516 2001 2,497 4,265 1,159 7,921 2036 192 190 51 433 2002 2,469 4,110 1,117 7,696 <	1992	2,459	5,293	1,440	9,192	2027	634	724	197	1 1
1995 2,538 5,037 1,370 8,945 2030 452 497 136 1,085 1996 2,546 4,928 1,341 8,815 2031 398 431 117 946 1997 2,547 4,807 1,307 8,661 2032 348 373 101 822 1998 2,543 4,682 1,273 8,498 2033 303 346 87 736 1999 2,534 4,550 1,238 8,322 2034 262 271 74 607 2000 2,522 4,414 1,201 8,137 2035 226 228 62 516 2001 2,497 4,265 1,159 7,921 2036 192 190 51 433 2002 2,469 4,110 1,117 7,696 2037 163 157 42 362 2003 2,433 3,955 1,076 7,464	1993	2,493	5,218	1,420	9,131	2028	571	643	175	1,389
1996 2,546 4,928 1,341 8,815 2031 398 431 117 946 1997 2,547 4,807 1,307 8,661 2032 348 373 101 822 1998 2,543 4,682 1,273 8,498 2033 303 346 87 736 1999 2,534 4,550 1,238 8,322 2034 262 271 74 607 2000 2,522 4,414 1,201 8,137 2035 226 228 62 516 2001 2,497 4,265 1,159 7,921 2036 192 190 51 433 2002 2,469 4,110 1,117 7,696 2037 163 157 42 362 2003 2,433 3,955 1,076 7,464 2038 136 127 35 298	1994	2,521	5,135	1,397	9,053	2029	510	567	154	1,231
1997 2,547 4,807 1,307 8,661 2032 348 373 101 822 1998 2,543 4,682 1,273 8,498 2033 303 346 87 736 1999 2,534 4,550 1,238 8,322 2034 262 271 74 607 2000 2,522 4,414 1,201 8,137 2035 226 228 62 516 2001 2,497 4,265 1,159 7,921 2036 192 190 51 433 2002 2,469 4,110 1,117 7,696 2037 163 157 42 362 2003 2,433 3,955 1,076 7,464 2038 136 127 35 298	1995	2,538	5,037	1,370	8,945	2030	452	497	136	1,085
1997 2,547 4,807 1,307 8,661 2032 348 373 101 822 1998 2,543 4,682 1,273 8,498 2033 303 346 87 736 1999 2,534 4,550 1,238 8,322 2034 262 271 74 607 2000 2,522 4,414 1,201 8,137 2035 226 228 62 516 2001 2,497 4,265 1,159 7,921 2036 192 190 51 433 2002 2,469 4,110 1,117 7,696 2037 163 157 42 362 2003 2,433 3,955 1,076 7,464 2038 136 127 35 298	1996	2,546	4,928	1,341	8,815	2031	398	431	117	946
1998 2,543 4,682 1,273 8,498 2033 303 346 87 736 1999 2,534 4,550 1,238 8,322 2034 262 271 74 607 2000 2,522 4,414 1,201 8,137 2035 226 228 62 516 2001 2,497 4,265 1,159 7,921 2036 192 190 51 433 2002 2,469 4,110 1,117 7,696 2037 163 157 42 362 2003 2,433 3,955 1,076 7,464 2038 136 127 35 298	1997		4,807			2032	348	373	101	822
1999 2,534 4,550 1,238 8,322 2034 262 271 74 607 2000 2,522 4,414 1,201 8,137 2035 226 228 62 516 2001 2,497 4,265 1,159 7,921 2036 192 190 51 433 2002 2,469 4,110 1,117 7,696 2037 163 157 42 362 2003 2,433 3,955 1,076 7,464 2038 136 127 35 298	1998	2,543	4,682	1,273		2033	303	346		736
2000 2,522 4,414 1,201 8,137 2035 226 228 62 516 2001 2,497 4,265 1,159 7,921 2036 192 190 51 433 2002 2,469 4,110 1,117 7,696 2037 163 157 42 362 2003 2,433 3,955 1,076 7,464 2038 136 127 35 298	1		•							
2001 2,497 4,265 1,159 7,921 2036 192 190 51 433 2002 2,469 4,110 1,117 7,696 2037 163 157 42 362 2003 2,433 3,955 1,076 7,464 2038 136 127 35 298	1 1	•	,							1
2002 2,469 4,110 1,117 7,696 2037 163 157 42 362 2003 2,433 3,955 1,076 7,464 2038 136 127 35 298			•							1
2003 2,433 3,955 1,076 7,464 2038 136 127 35 298										
	1			•		1				
	2004	2,393	3,798	1,033	7,224	2039	114	102	28	244

Table A3: Armstrong Forecasts as of December 31, 2001: Number of Filings

Filing	Payment		Disea	se		
Year	Year	Meso	Lung	Othc	Nonm	Total
Pending	2002	3,134	6,604	2,153	124,105	135,996
2001	2003	1,624	2,365	731	43,563	48,283
2002	2004	1,796	2,354	786	42,983	47,919
2003	2005	1,950	2,320	827	41,995	47,092
2004	2006	2,102	2,283	864	41,007	46,256
2005	2007	2,254	2,243	896	40,019	45,412
2006	2008	2,245	2,161	861	39,031	44,298
2007	2009	2,235	2,080	827	38,043	43,185
2008	2000	2,185	1,981	789	36,610	41,565
2009	2001	2,135	1,881	751	35,177	39,944
2010	2012	2,084	1,782	713	33,744	38,323
2011	2013	2,034	1,683	675	32,312	36,704
2012	2014	1,983	1,584	637	30,879	35,083
2013	2015	1,897	1,491	598	29,253	33,239
2014	2016	1,811	1,398	559	27,628	31,396
2015	2017	1,725	1,305	520	26,002	29,552
2016	2018	1,638	1,211	481	24,376	27,706
2017	2019	1,552	1,118	442	22,751	25,863
2018	2010	1,464	1,027	407	21,165	24,063
2019	2011	1,377	937	372	19,579	22,265
2020	2022	1,289	846	337	17,993	20,465
2021	2023	1,202	756	302	16,407	18,667
2022	2024	1,114	665	267	14,821	16,867
2023	2025	1,028	601	241	13,529	15,399
2024	2026	942	536	215	12,238	13,931
2025	2027	856	472	189	10,946	12,463
2026	2028	770	407	164	9,655	10,996
2027	2029	684	343	138	8,363	9,528
2028	2020	617	305	123	7,496	8,541
2029	2021	552	269	108	6,665	7,594
2030	2032	490	237	96	5,895	6,718
2031	2033	432	206	82	5,159	5,879
2032	2034	378	178	72	4,501	5,129
2033	2035	330	168	62	4,024	4,584
2034	2036	286	131	53	3,353	3,823
2035	2037	247	110	44	2,872	3,273
2036	2038	210	92	37	2,422	2,761
2037	2039	179	77	30	2,039	2,325
2038	2040	150	62	25	1,692	1,929
2039	2041	126	50	21	1,398	1,595
Futures		47,973	39,715	15,342	777,585	880,615
Total		51,107	46,319	17,495	901,690	1,016,611

Table A4: Armstrong Forecasts as of December 31, 2001: Nominal Value of Liability

Filing Payment						
Year	Year	Meso	Lung	Othc	Nonm	Total
Pending	2002	\$332.1	\$116.9	\$13.8	\$357.6	\$820.4
2001	2003	\$176.4	\$42.9	\$4.8	\$128.7	\$352.8
2002	2004	199.9	43.8	5.3	130.1	379.1
2003	2005	222.5	44.2	5.7	130.3	402.8
2004	2006	245.9	44.6	6.1	130.4	427.1
2005	2007	270.2	44.9	6.5	130.5	452.1
2006	2008	275.9	44.4	6.4	130.4	457.1
2007	2009	281.6	43.8	6.3	130.3	462.0
2008	2000	282.2	42.7	6.2	128.5	459.6
2009	2001	282.5	41.6	6.0	126.6	456.7
2010	2012	282.8	40.4	5.9	124.5	453.5
2011	2013	282.8	39.1	5.7	122.2	449.8
2012	2014	282.7	37.7	5.5	119.7	445.6
2013	2015	277.2	36.4	5.3	116.2	435.0
2014	2016	271.2	35.0	5.1	112.5	423.7
2015	2017	264.7	33.5	4.8	108.5	411.5
2016	2018	257.7	31.8	4.6	104.3	398.4
2017	2019	250.3	30.1	4.3	99.7	384.5
2018	2010	242.1	28.4	4.1	95.1	369.6
2019	2011	233.3	26.5	3.8	90.2	353.8
2020	2022	223.9	24.6	3.5	85.0	337.0
2021	2023	213.9	22.5	3.3	79.4	319.1
2022	2024	203.3	20.3	2.9	73.5	300.1
2023	2025	192.3	18.8	2.7	68.8	282.6
2024	2026	180.6	17.2	2.5	63.8	264.0
2025	2027	168.2	15.5	2.3	58.5	244.4
2026	2028	155.0	13.7	2.0	52.9	223.6
2027	2029	141.1	11.8	1.7	46.9	201.6
2028	2020	130.5	10.8	1.6	43.1	186.0
2029	2021	119.6	9.8	1.4	39.3	170.1
2030	2032	108.8	8.8	1.3	35.6	154.5
2031	2033	98.4	7.8	1.1	32.0	139.3
2032	2034	88.3	7.0	1.0	28.6	124.8
2033	2035	79.0	6.7	0.9	26.2	112.8
2034	2036	70.1	5.4	0.8	22.4	98.6
2035	2037	62.2	4.6	0.7	19.6	87.1
2036	2038	54.2	4.0	0.6	17.0	75.7
2037	2039	47.3	3.4	0.5	14.6	65.8
2038	2040	40.6	2.8	0.4	12.5	56.3
2039	2041	35.0	2.3	0.3	10.6	48.2
Futures		\$7,294.2	\$949.6	\$133.9	\$3,089.0	\$11,466.3
Total		\$7,626.3	\$1,066.5	\$147.7	\$3,446.6	\$12,286.7

EXHIBIT 1

MARK A. PETERSON

1700 Main Street Santa Monica, California 90406 (310) 393-0411

970 Calle Arroyo Thousand Oaks, California 91360 (805) 499-3572

EDUCATION

Ph.D. Social Psychology, 1976, UCLA
M.A. Social Psychology, 1973, UCLA
J.D. (cum laude), 1969, Harvard University
B.A. (summa cum laude, Phi Beta Kappa), 1966, University of Minnesota

PROFESSIONAL EXPERIENCE

1976-Present--Policy analysis and research, Senior Research Scientist, RAND, Santa Monica, California.

Principal Investigator for following studies:

Workers Compensation. Evaluation of California worker compensation system and suggestions for change for California Commission on Health and Safety and Workers Compensation.

Mass Tort Litigation. Examines uses of alternative legal procedures and methods of alternative dispute resolution in toxic and other mass torts.

Economic Effects of Product Liability Law. Case Studies and Statistical Analyses of Selected Industries.

Punitive Damages Study. Described frequency, size, and types of cases in which punitive damages are awarded; trends over time; effects of post-trial actions; possible effects of legal changes. In collaboration with Special Committee on Punitive Damages of the Litigation Section of the American BarAssociation.

Trends and Patterns in Jury Trials and Verdicts. Data collection and analysis of civil jury trials in California and Cook County, Illinois, between 1959-1985.

Expert System for Evaluating Asbestos Cases. Examined how lawyers and adjusters evaluate claims; developed artificial intelligence computer model to describe evaluation process.

Modeling of Trial Lawyers' Decisionmaking. Development of a prototype expert system of settlement practices for product liability claims.

RAND Criminal Offender Survey. Survey of inmates in five California prisons. Estimated crime parameters; examined incapacitation effects; examined relationships between crime and inmate characteristics.

RAND Criminal Offender Survey II. Examined preincarceration crimes for sample of 2500 jail and prison inmates in three states.

Effects of California Determinate Sentencing.

1984-Present-Legal Analysis Systems, Inc. Special master/expert/consultant in complex litigation.

Findley v. Falise, Findley v. Blinken (mandatory, limited fund class actions to reorganize Manville Personal Injury Settlement Trust): Special Advisor to U.S. District Courts for Eastern and Southern Districts of New York, U.S. Bankruptcy Court for Southern District of New York. Special master and technical consultant to the courts and parties.

Fuller-Austin Settlement Trust: Trustee, Chairman of the Trust and expert on estimation of claims for trust created to allow and pay asbestos personal injury claims.

NGC Asbestos Disease and Property Damage Settlement Trust: Consultant for estimating present and future asbestos personal injury claims and cash flow analyses of Trust's ability to pay projected claims.

UNR Asbestos Disease Claimants Trust: Consultant on estimation of present and future asbestos claims and claims distribution procedures.

Eagle-Picher Asbestos Trust: Consultant on estimation of present and future asbestos claims and claims distribution procedures.

Celotex Trust: Consultant to Representative of Future Claimants regarding estimation of asbestos liabilities.

Keene Asbestos Claimants Trust: Expert of estimation of liabilities for asbestos personal injury claimants.

CNA: Expert for CNA Insurance on liabilities of an asbestos defendant insured by CNA.

H. K. Porter Inc. Asbestos Claimants Trust: Consultant on estimation of present and future asbestos claims and claims distribution procedures.

In re: Celotex and Carey Canada: Expert for Asbestos Claimants' Committee on estimation and treatment of asbestos personal injury claims.

Ahearn v. Fibreboard (mandatory class action): Expert for CNA and Continental Insurance Companies regarding estimation of values of future asbestos personal injury claims and likely performan of the proosed Fibreboard Trust.

In re Bankruptcy of Dow Corning Corporation: Expert for Tort Claimants' Committee regarding estimation and treatment of breast implant and other medical implant claimants.

In re: Bankruptcy of Wallace and Gale Corporation: Expert for Asbestos Claimants' Committee regarding estimation and treatment of asbestos personal injury claims.

In re: Bankruptcy of Fuller-Austin Insurance Company: Expert for Asbestos Claimants' Committee regarding estimation and treatment of asbestos personal injury claims, negotitation of prepackaged bankruptyc plan and cash-flow analyses for proposed claimants' trust.

In re: Bankruptcy of Raytech Corporation: Expert for Asbestos Claimants' Committee regarding estimation and

treatment of asbestos personal injury claims and for design of procedures to pay such claims.

In re: Bankruptcy of Raymark Corporation: Expert for Unsecured Claimants' Committee regarding estimation of liabilities for asbestos personal injury claims.

In re: The Babcock and Wilcox Company et. al.: Expert for Asbestos Claimants' Committee in bankruptcy proceedings regarding estimation and treatment of asbestos personal injury claims.

In re: Pittsburgh Corning Corporation: Expert for Official Committee of Unsecured Asbestos Creditors in bank-ruptcy proceedings regarding estimation and treatment of asbestos personal injury claims.

In re: Owens Corning, et. al.: Expert for Official Committee of Asbestos Claimants in bankruptcy proceedings regarding estimation and treatment of asbestos personal injury claims.

In re: Bankruptcy of Eagle-Picher Industries, Inc.: Expert for Injury Claimants Committee regarding estimation and treatment of present and future asbestos injury claims and design of Trust distribution procedures to pay asbestos and potential lead claims.

In re: Bankruptcy of National Gypsum Corporation: Expert for Asbestos Claimants Committee regarding estimation and treatment of present and future asbestos injury claims and design of Trust distribution procedures to pay asbestos personal injury claims.

In re: Bankruptcy of H. K. Porter Company, Inc.: Expert for Unsecured Creditors Committee regarding estimation and treatment of present and future asbestos injury claims.

In re: Bankruptcy of Hillsborough Holdings Corporation: Expert for Asbestos Claimants regarding estimation of values of present and projected future claims against Celotex Corporation at various points in time.

In re: Bankruptcy of Keene Corporation: Expert for Asbestos Claimants Committee regarding estimation of present a and future asbestos claims.

Manville Personal Injury Settlement Trust: Developed "expert system"--rules for evaluating asbestos personal injury claims derived from plaintiffs and defense lawyers.

In re: Bankruptcy of A. H. Robins Company, Inc.: Neutral expert for the U.S. Bankruptcy Court for Eastern District of Virginia. Developed "expert system," data bases and statistical analyses to evaluate claims for personal injuries from Dalkon Shield.

Jenkins v Raymark (Voluntary class action): Neutral expert for the U.S. District Court, Eastern District of Texas to evaluate asbestos personal injury claims.

Ohio Asbestos Litigation Plan: Neutral expert for the U.S. District Court, Northern District of Ohio to evaluate asbestos personal injury claims.

MGM Grand Hotel Fire Insurance Litigation: Expert for Frank B. Hall, Inc. to evaluate wrongful death and personal injury claims arising from MGM Grand Hotel fire.

1969-1974 -- Private Law practice in Los Angeles, California.

Selective service practice, with some litigation and commercial practice (1970-1974).

Tax, selective service, and trial practice, Margolis, Mc-Ternan, Smith, Scope and Herring (1970).

Corporate and Tax practice, Kindel and Anderson (1969--1970).

1965-1969 -- Computer programming and systems analyst.

Law firm case accounting and monitoring system, Hale and Dorr, Boston (1967-1969).

American Oil Company, Minneapolis, Minnesota (1965-1966).

International Business Machines, St. Paul, Minnesota (1965).

OTHER PROFESSIONAL ACTIVITIES

California Legislature, Joint Rules Committee, Sacramento--Consultant. Supervised three research projects on prisons, sentencing, and prison alternatives.

California Board of Prison Terms, Sacramento--Consultant. Developed computer system for reviewing disparity in felony sentencing.

National Jury Project—Attorney and researcher for jury selection in cases involving racial issues. Designed and analyzed public opinion surveys. Los Angeles County District Attorney—Lecturer on methods for jury selection.

Los Angeles County Superior Court--Consultant. Examined effects of massive pretrial publicity on jurors' opinions and decisions.

Los Angeles County Superior Court; U.S. District Court--Appointed expert on eye witness identification.

TEACHING

Law School, University of California, Los Angeles--Visiting Professor. Advanced Torts: Mass Torts; Law and Social Sciences Seminar, Fall 1989. RAND Graduate School--Policy Analysis of Legal Issues, Fall 1984.

Department of Psychology, University of California, Los Angeles---Psychological Analyses of Legal Issues, Spring 1973, Spring 1975.

Law School, University of California, Los Angeles--Trial Tactics (with W.L.F. Felstiner), Spring 1974, Fall 1974, Spring 1975.

PROFESSIONAL ORGANIZATIONS

California Bar Association

American Bar Association

PUBLICATIONS

- "Compensating Permanent Workplace Injuries: A Study of the California System, RAND. 1998. Coathured.
- "Findings and Recommendations of California's Permanent Partial Disability System, RAND, 1998. Coauthored.
- "Understanding Mass Personal Injury Litigation: A Socio-Legal Analysis," Brooklyn Law Review, Vol. 59, Fall 1993 (coauthored).
- "Mass Justice: The Limited and Unlimited Power of Courts," Law and Contemporary Problems, Vol. 54, Summer 1991 (coauthored).
- "Giving Away Money: Comparative Comments on Claims Facilities," Law and Contemporary Problems, Vol. 53, Autumn 1990.
- Resolution of Mass Torts: Toward a Framework for Evaluation of Aggregative Procedures, RAND, N-2805-ICJ, 1988 (coauthored).
- "Expert Systems for Legal Decisionmaking," in Knowledge-Based Systems for Management Decisions, Robert J. Mockler, Englewood Cliffs, NJ; Prentice Hall, 1988 (coauthored).
- Trends in Tort Litigation: The Story Behind the Statistics, RAND, R-3583--- ICJ, 1987 (coauthored).
- Punitive Damages: Empirical Findings, RAND, R-3311-ICJ, 1987 (goauthored).
- Civil Juries in the 1980s: Trends in Jury Trials and Verdicts in California and Cook County Illinois, RAND, R-3466-ICJ, 1987.
- Summary of Research Results: Trends and Patterns in Civil Jury Verdicts, RAND, P-7222-ICJ, 1986.
- "SAL: An Expert System for Evaluating Asbestos Claims," in Proceedings of the Australian Artificial Intelligence Congress, November 1986 (coauthored).
- "Remarks on the Role of Juries in Cases Involving Medical Causation," in Causation and Financial Compensation for Claims of Personal Injury from Toxic Chemical Exposure, The Institute for Health Policy Analysis of the Georgetown University Medical Center and the Georgetown University Law Center, 1986.
- Deep Pockets, Empty Pockets: Who Wins in Cook County Courts, RAND, R-3249-ICJ, 1985 (coauthored).
- "An Expert System Approach to Evaluating Product Liability Cases," in Computing Power and Legal Reasoning, Charles Walter (ed.), St. Paul: West Publishing Co., 1985 (coauthored).

- Evaluating Civil Claims: An Expert Systems Approach, RAND, P-7073-ICJ, 1985; also in Expert Systems: The International Journal of Knowledge Engineering, Vol. 1, No. 1, 1984 (coauthored).
- Compensation of Injuries: Civil Jury Verdicts in Cook County, RAND, R-3011-ICJ, 1984.
- New Tools for Reducing Civil Litigation Expenses, RAND, R-3013-ICJ, 1983.
- Comparative Justice: Civil Jury Verdicts in San Francisco and Cook Counties, 1959-1980, RAND, R-3006-ICJ, 1983 (coauthored).
- The Civil Jury: Trends in Trials and Verdicts, Cook County, Ill., 1960-1979, RAND, R-2881-ICJ, 1982 (coauthored). Also in Federation of Insurance Council Quarterly, Summer 1982.
- The Pace of Litigation, RAND, R-2922-ICJ, 1981 (coauthored).
- Models of Legal Decisionmaking, RAND, R-2717-ICJ, 1981 (coauthored).
- Punitive Damages: Preliminary Empirical Findings, RAND, N-2342-ICJ, 1985.
- Who Commits Crime: A Survey of Prison Inmates, Oelgeschlager, Gunn and Hain, Cambridge, 1981 (coauthored).
- Survey of Prison and Jail Inmates: Background and Method, RAND, N-1635--NIJ, 1982 (coauthored).
- California Justice Under Determinate Sentencing: A Review and Agenda for Research, RAND, R-2497-CRB, 1980 (coauthored).
- Doing Crime: A Survey of California Prison Inmates, RAND, R-2200-DOJ, 1980 (coauthored).
- Recommendations and Report of the Citizens' Advisory Committee on Alternatives to Incarceration, California Legislature, Joint Rules Committee, 1980.
- Witnesses' Perception of Meaning, RAND, P5975, 1977.
- Results of YLS Survey on Specialization/Relicensing, RAND, P-5752, 1976.
- "Specialization and Relicensing," Barrister Magazine, 1976.
- "Right to Jury Trial in Public Employee Strikes," Harvard Civil Rights--Civil Liberties Law Review, 1969.

March 2001

EXHIBIT 2

Reports and Testimony in Asbestos Matters for Dr. Mark Peterson within Past Four Years

In re Owens Corning, Estimation hearing, D. Del., 2005	C&D
• Trial Testimony – 1/05	CCD
Deposition Testimony – 12/04	
• Rebuttal Report – 12/04	
• Expert Report – 10/04	
In re Federal Mogul, Estimation hearing, D. Del., 2005	C&D
• Trial Testimony – 6/05	
 Deposition Testimony – 5/05 	
• Rebuttal Report – 5/05	
• Supplemental Report – 4/05	
 Deposition Testimony – 12/04 	
• Expert Report – 11/04	
JT Thorpe, Adv. Pr. No. 04-01438, 2006	C&D
• Rebuttal Report – 2/06	
• Expert Report – 1/06	
III III and David Co. C.	
JT Thorpe, Bankruptcy Confirmation hearing, 2005	C&D
• Testimony by declaration, live cross-examination – 7/05 *	
• Rebuttal Report – 7/05	
• Expert Report – 6/05	
• Correction to Expert Report – 6/05	
Thurston, Bankruptcy Confirmation hearing, 2006	*
• Trial Testimony – 3/06 *	
API, Confirmation hearing, 2005	*
• Testified by declaration – 12/05 *	
Addition of decimation 12,03	
Fuller Austin Insulation Co. v. Fireman's Fund Insurance Company,	C&D
Superior Court, Los Angeles, BC 116835, 2003	
• Trial Testimony – 5/03 *	
Deposition Testimony *	
Expert Reports	
Lippe v. Bairnco Corp., S.D.N.Y., 2003	C&D
Deposition Testimony *	
Expert Report	
- Emport Report	

National Gypsum, 2003 • Expert Report	C&D
Grace Asbestos Creditors Committee v. Sealed Air Corp., D.Del., 2002	C&D
Report and deposition testimony are protected by confidentiality agreement	CQD
Western MacArthur v. General Accident Ins. Co., State Court, Alameda County,	*
California, 2002	
• Trial Testimony *	
Deposition Testimony *	
In re Western MacArthur, Confirmation hearing, Bankr. N.D. Cal., 2003	C&D
• Trial Testimony – 11/03	
• Deposition Testimony *	
• Expert Report – 8/03	
Armstrong v. CCR, Bankr. D. Del., 2003	**
 Deposition Testimony – 10/03 	
• Rebuttal Report – 9/03	
• Expert Report - 7/03	
In re Armstrong World Industries, Confirmation hearing, Bankr. D. Del., 2003	**
• Trial Testimony – 11/03	
• Expert Report – 11/03	
In re Babcock & Wilcox Company, Confirmation hearing, Bankr. E.D. La., 2003	C&D
• Trial Testimony – 10/03	
 Deposition Testimony – 9/03 	
• Expert Report - 8/03	
In re Oglebay Norton, Bankr. D. Del, 2004	C&D
• Trial Testimony – 9/04 *	
• Expert Report – 9/04	
In re G-I Holdings, GAF adversary proceeding, 2005	C&D
• Deposition Testimony – 10/05	
• Deposition Testimony – 8/05	
• Expert Report – 3/05	
In re G-I Holdings	C&D
• Supplemental Affidavit – 1/03	
• Affidavit – 8/02	

- * Dr. Peterson does not have copies of his deposition or trial testimony in these matters.
- ** We are not producing these items as you already have them.

EXHIBIT 3

Materials on which Dr. Mark Peterson relied or considered for purposes of his testimony in Armstrong

Nicholson, et al., Occupational Exposure to Asbestos: Population at Risk & Projected Mortality – 1980-2030, Am. J. Indus. Med. 3:259-311 (1982)	C&D
Weill, et al., Changing Trends in US Mesothelioma Incidence, Occup. Environ. Med. 61:438-441 (2004)	C&D
AWI claims database(s)	LAS
T&N claims database information	LAS
Electronic version of all calculations underlying Peterson report	LAS
CCR Producer Agreement (CCRAWI106001-049)	**
CCR Summary Verdict Information (CCRAWI0600050-283)	**
CCR settlement agreements entered into between CCR defendants and asbestos personal injury plaintiffs or their lawyers (CCRAWI0600284-1558)	**
CCR Summary Business Record showing AWI indemnity payments and number of cases in which AWI paid a share January 1998-December 2000 (CCRAWI106-01e)	**
Deposition testimony of Barbara Owen from <u>AWI v. CCR</u> litigation (entered in evidence in November 2003 confirmation hearing)	C&D
Testimony from Daniel Myer, Edward Houff, and Lawrence Keating from AWI v. Liberty ADR	**
Complete trial record in <u>In re Owens Corning</u> , No. 04-905 (D. Del. 2005)	C&D
Complete trial record in <u>In re Federal Mogul</u> , No. 05-59 (D. Del. 2005)	C&D
Memo re LAS SEER age adjustment calculations	C&D
SEER data (http://seer.cancer.gov/faststats/sites.php?site=Mesothelioma&stat=Incidence)	LAS
Manville Trust claims information database	LAS
Manville Trust Projected Claim Filing Scenarios, Tillinghast, May 17, 2005	C&D
In re Silica Prods. Liab. Litig., 398 F.Supp.2d 563 (S.D. Tex. 2005)	C&D
Union Carbide SEC Form 10-K – FY2000 through FY2005	C&D

USG SEC Form 10-K - FY2001	C&D
Mealey's Presentation from C. Michael Evert, Jr., Asbestos Litigation: Where has it been and where is it headed? (2006)	LAS
Opinion in Dyson v. AC&S (AWI20001219)	C&D
Armstrong Disclosure Statement – section describing historical bases for Armstrong's asbestos liability	**
Claims data for Owens Corning, Porter Hayden, Thorpe, B&W	LAS

^{**} These items are not being produced again as they have already been produced to the Unsecured Creditors Committee by AWI or the CCR.

IN THE UNITED STATES BANKRUPTCY COURT FOR THE DISTRICT OF DELAWARE

In re:)	Chapter 11
)	
ARMSTRONG W	ORLD INDUSTRIES,)	Case No. 00-4471 (JKF)
INC., et al.,)	
)	
	Debtors.)	Jointly Administered

THE OFFICIAL COMMITTEE OF ASBESTOS CLAIMANTS' NOTICE OF SERVICE OF EXPERT REPORT OF DR. MARK A. PETERSON IN CONNECTION WITH CONFIRMATION

PLEASE TAKE NOTICE that Marla R. Eskin of Campbell & Levine, LLC, caused a copy of the Official Committee of Asbestos Claimants' expert witness report of Dr. Mark A. Peterson, with its attached exhibits, to be served upon the individuals on the attached service list as indicated.

A courtesy copy of this report has also been delivered to the chambers of the Honorable Eduardo C. Robreno.

Dated: March 29, 2006 CAMPBELL & LEVINE, LLC

Marla R. Eskin (I.D. #2989) 800 North King Street, Suite 300 Wilmington, DE 19801 (302) 426-1900